

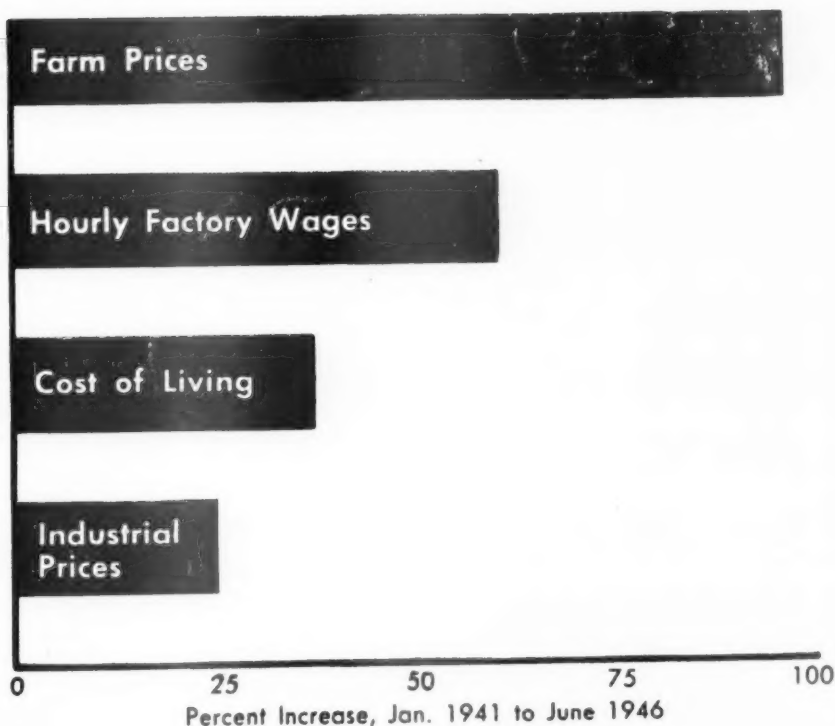
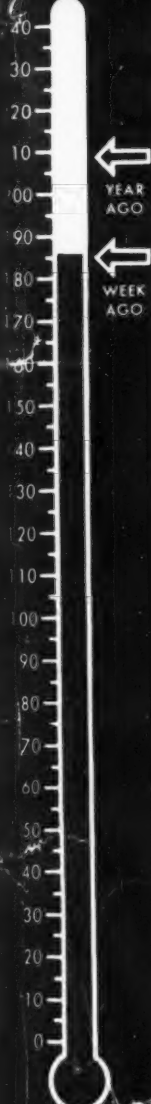
BUSINESS WEEK

AUG. 24, 1946

TECHNOLOGY DEPT

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HOW THE WAR DISTORTED PRICES



Report to Executives — "Business and Prices: The Next Nine Months" (page 45)

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WASHINGTON BULLETIN

THE TEST INDUSTRY?

The Administration's resolve to hold the line against another round of raises will face its real test only when confronted, under threat of strike, with an increase in a major industry in which payment of the increase is made conditional by employers on National Wage Stabilization Board approval.

This industry could well be meat packing.

Restoration of price ceilings on meat brings the government's wage-price policy to bear on contract negotiations now in progress between the Big Four meat packers and C.I.O. and A.F.L. unions. Contracts which expired Aug. 11 have been extended, but the unions are thinking of filing 30-day strike notices so as to be free to strike later.

If wage concessions necessitate price relief, the packers will be able to bring before OPA only those which are approved by NWSB. Unless unusual circumstances justify it, approval isn't in sight for any general wage increase above the 16¢ pattern paid by the industry last February. NWSB might O.K. some fringe adjustments, such as the guaranteed annual wages being sought by both C.I.O. and A.F.L.

LOBBYISTS OR EDUCATORS?

Many dues-supported organizations which try to influence legislation are disturbed about the possible effect on their membership rolls of the new lobby-registration law. If they register, the Bureau of Internal Revenue might get the idea that they should no longer be classified as "educational" organizations. In that case members would no longer be entitled to deduct dues payments when making income tax returns.

Some organizations, such as the U. S. Chamber of Commerce, hope that they can satisfy the law—and the Treasury—simply by having their legislative representatives register personally. The labor organizations are planning to follow the same course.

STILL IN THE MINES

Anxious as the government may be to get out of the soft coal business, it will hang on to the mines until the operators and John L. Lewis come to terms. This is still a long time off.

When Admiral Ben Moreell, government administrator, asked the U.M.W. chief and the operators this week to

resume collective bargaining sessions Sept. 10, he had no inside information that either side is ready to give in. Rather, he is seeking to avoid criticism that the government is doing nothing to free the mines. At the same time, Moreell recognizes that no agreement can be reached as long as both parties sit on their hands.

Two stumbling blocks are recognition of Lewis' foremen's union, which the government has done in its contract covering the period of seizure, and the possibility that Lewis may now seek further wage increases.

Question Before the Courts

The operators won't sign up with the foremen unless the courts hold that the National Labor Relations Act requires them to do so—and it will be months before this question is decided, in a case involving foremen at two Jones & Laughlin mines.

Mine operators saw a ray of hope in a recent federal circuit court decision at Cincinnati involving the right of the Foreman's Assn. of America, unaffiliated union, to bargain for Packard foremen (BW—Aug. 17 '46, p92). In upholding this union, which represents only foremen, the court strongly suggested that its decision might have been different if, as in the J. & L. situation, the foremen were in the same union as the workers they supervise, and subject to possible discipline by them through the union.

CONCILIATION EXPERIMENT

Adapted from wartime experience, the creation of a National Trucking Commission in the U. S. Conciliation Service is an experiment intended to keep strikes at a minimum. The agency will continue a tripartite panel composed of industry, labor, and public members, similar to the old National War Labor Board, to settle disputes submitted voluntarily by the Local Cartage National Conference and the A.F.L. Teamsters Union.

If this practice should prove successful, other branches of the trucking industry, and possibly other industries, may be tempted to follow suit.

MORE FOR HOUSING

In an effort to shorten the six-month or longer building time on houses—now the weakest feature of his program—Housing Expediter Wilson Wyatt is preparing to crack down once more on

the amount of nonhousing construction.

Over strong opposition from John Small, Civilian Production Administrator, he's insisting that OPA make a further cut in approvals of new nonresidential work, which was slashed last June to less than \$50,000,000 a week from its April peak of some \$230,000,000.

It's late in the season for this to have much effect; bulk of this year's work is already under way. But Wyatt is using the priority system to crack down on projects already approved. The number of materials subject to priority is to be doubled, and the percentages of production of each material which must be reserved for delivery on HH priorities are being increased.

ECONOMY DWINDLES

It's harder for Washington to swing the economy knife on farmers than on anybody else, and the Rural Electrification Administration has already wriggled out from under the President's budget-balancing program of paring federal construction. OWMR boss John Steelman says the stinginess policy doesn't apply to REA's quarter billion a year program of loans to rural electric cooperatives.

With REA's success in mind, western senators are trying to rescind the 50% slash in Interior's reclamation program, and the Army Engineers are predicting that the \$124,000,000 cut in their river and harbor program will prevent even essential maintenance work.

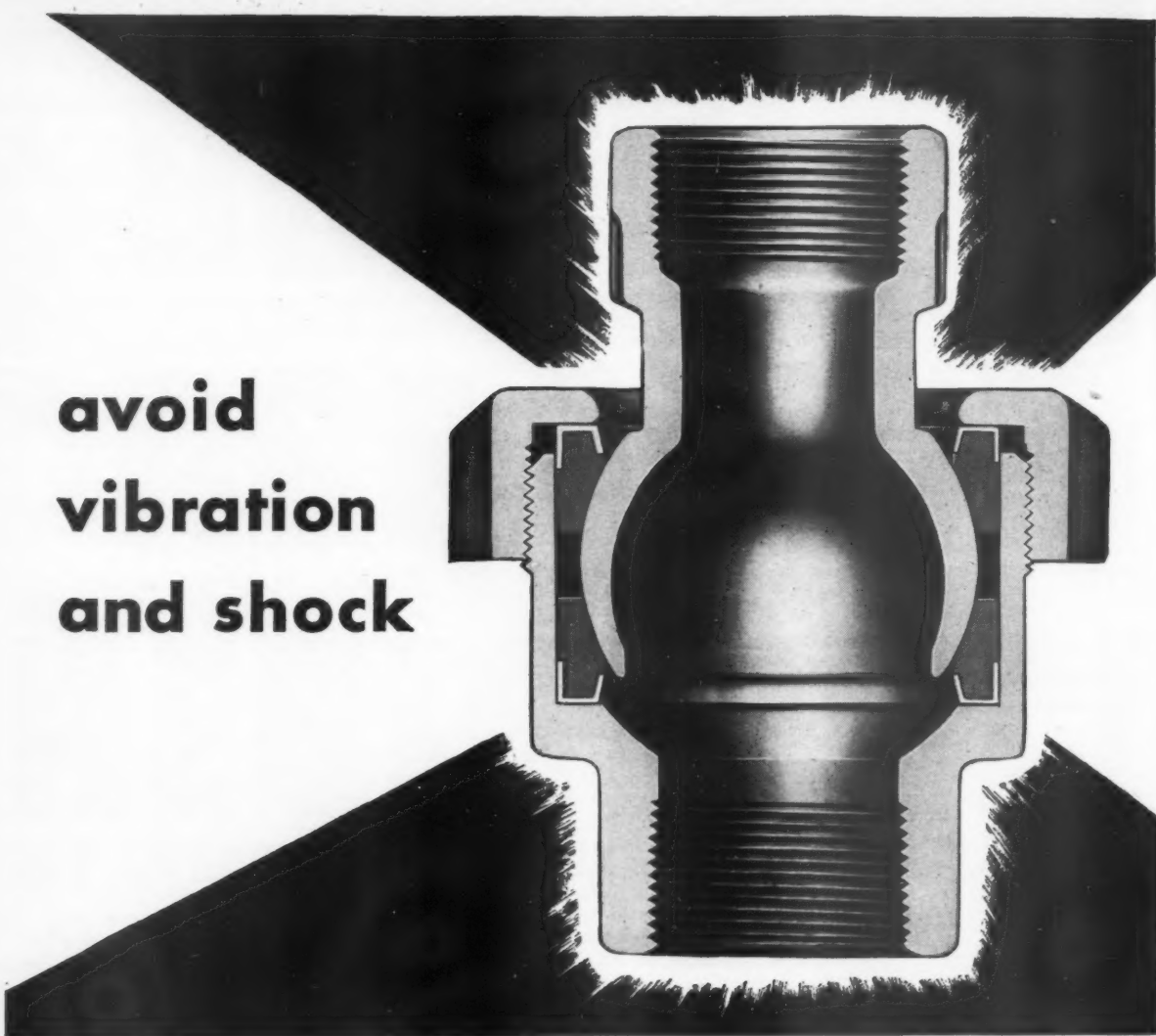
Further accelerating the almost inevitable decay of any economy drive, congressmen up for reelection this year are audibly wondering about the legality of presidential cuts in programs authorized by the Congress. F.D.R. got away with it.

STRAYING INTO OBLIVION

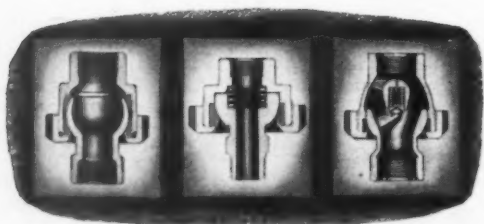
The House Committee on Un-American Activities, which reached its heyday under the chairmanship of former Rep. Martin Dies of Texas, may be singing its swan song this fall if Acting Chairman John Rankin of Mississippi follows through on his announced intention to steer the committee into an investigation of C.I.O.-P.A.C. and its primary and election activities.

Congressional hostility toward the committee has become more and more apparent as more representatives have screwed up courage to vote against its continuation. The committee won

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status as a standing committee in the last Congress, but by a margin of only 22 votes, and Rankin's plan to take it far afield from its original purpose may prompt a majority of the next House to hamstring it by cutting down its funds, if not to abolish it entirely.

Rankin's move was prompted by refusal of Speaker Sam Rayburn to name Rep. James Domengeaux of Louisiana as chairman of the customary committee to investigate this year's congressional elections. Domengeaux was author of the resolution creating the committee and normally would have been named chairman, but prior to approval of the resolution, he publicly announced his intention of probing C.I.O.'s political activities. Upshot was that Rayburn named Rep. Emmett O'Neal of Kentucky as chairman.

MERLINS ESCAPE JUNKING

War Assets Administration is waiting with some trepidation for a squawk from the British over the sale by Gimbels department store in New York of Packard-built Rolls Royce Merlin engines. The British recently accepted modification of an agreement, made when we obtained the designs, that all surplus engines would be junked. Any nonaeronautical sale is now acceptable. But a WAA check reveals that an Army depot sold the Merlins to Gimbels "as engines" without restrictions on sale. At \$2,500 an engine, it's hard to see a nonaeronautical market.

SHARING SEIZED PATENTS

American industrialists making use of German-owned patents under the free-license policy of the Alien Property Custodian will be able to do an export as well as a domestic business as soon as three more nations sign an intergovernmental agreement worked out this month.

The U. S., Britain, the Netherlands, and France have already signed. Most of the Allied nations, including this country, seized German-owned patents and made them freely available to citizens—but not to friendly foreigners. Result was a complete block on any international trade in goods using German-owned patents. The agreement provides for free licenses to all comers.

An incidental benefit will be easier access to information on German ideas patented abroad but not in this country. By the end of the year, some U. S. agency—probably the Commerce Dept.'s Office of Technical Services—will re-

ceive from all participating countries lists of seized patents. The French list will be particularly interesting, since during the occupation the Germans took out French patents on many wartime developments.

ZINC AWAITS REPRICING

Freezing of the government's zinc stockpile is a matter of waiting out a vexing situation more than it is a conservation measure.

The metal trade expects OPA to

grant an increase over the reimposed June 30 ceiling of 84¢ within the next few days. Then, it is agreed, the Civilian Production Administration will resume release of some 5,000 to 6,000 tons a month from the stockpile.

Under present conditions, however, everybody is scrambling for two grades of zinc—prime western (for galvanizing) and special high grade (for die-casting). Equitable distribution of stockpile zinc is impossible until a price decision—one way or the other—regularizes distribution through the usual trade channels.

The fact that government subsidies

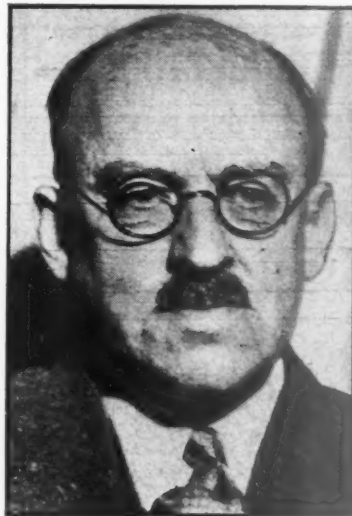
Vermont Gives C.E.D. a Man in the Senate

The Committee for Economic Development now has a man in the Senate. Ralph E. Flanders' nomination in the Vermont Republican primary is tantamount to election. As head of C.E.D.'s Research Committee, Flanders has had a major influence in shaping the economic policies of this organization which has ploughed a straight furrow of liberal realism through the confused reconversion period.

• **On Various Boards**—An engineer and machine-tool builder (president of Jones & Lamson and Bryant Chucking Grinder Co.) Flanders has been in and out of Washington since NRA days. He served on NRA's Advisory Board, the Commerce Dept. Advisory Council, the War Production Board—the familiar curriculum of the important class of businessmen in government.

The C.E.D. is close to labor in Vermont—in large measure because of Flanders' own excellent company relations with the C.I.O.'s United Electrical & Machine Workers, which regards its Jones & Lamson contract as one of its best. He had the official indorsement of C.I.O.'s Political Action Committee in his campaign, although he soft-pedaled it to avoid disturbing Vermont's rock-ribbed farmers.

Flanders' nomination means that Sen. Warren R. Austin, who went to the United Nations as U. S. representative on the Security Council, will be succeeded by a man with similar international views. One of Flanders' main preoccupations has been freeing international trade; he supported the British loan and creation of the World Bank. Although not the orator type, he's a master



Ralph E. Flanders

of small-group discussion—a talent that has been a boon to C.E.D. in its Washington contacts.

• **Up From the Shop**—Flanders started as a machinist apprentice when he left high school, and his rapport with labor has endured through a career as mechanical engineer, manufacturing executive, and director of companies, but he worries sometimes that union policies militate against maximum productivity.

A scholarly personality shows through the businessman, and has won him several honorary degrees. There may be a clue to the evolution of Flanders' thought in the titles of his books: *Gear Cutting Machinery* (1909), *Taming Our Machines* (1931), *Platform for America* (1936), *Toward Full Employment* (1938).

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have been resumed on premium production, incidentally, isn't proving much of a spur to production. Such incentive subsidies never have been popular with mine operators and do the refiner no good at all.

CAPITAL GAINS (AND LOSSES)

The scrap industry's hope of getting to work on cutting up 280 ships to yield some 700,000 tons of badly needed steel scrap has been upset by the demand of the Navy and the Maritime Commission for high prices on an "as is" basis.

The Bureau of Labor Statistics' offer to consult with the National Assn. of Manufacturers over the BLS monthly retail price index is open to all critics of the index. N.A.M. was singled out for an invitation this week by reason of its published criticism that the index exaggerated cost-of-living increases during OPA's suspension.

Biggest of all clipping bureaus is the federal government. Well aware of this, Congress for years limited the annual expenditure for papers and periodicals by executive departments to \$100 each. The last Congress removed the ceiling. Now the question is whether there are enough scissors to go round. The Budget Bureau will continue to keep an eye on both items.

—Business Week's
Washington Bureau

THE COVER

Where are we going in the months ahead?

For a statement and explanation of Business Week's answer to that big question from its management readers, turn to the Report to Executives, "Business and Prices: The Next Nine Months" (page 45).

Where are we starting?

For a revealing answer to that one, turn back to the cover's graphic picture of the war-made price distortions that confront business today.

This shows: that between January, 1941, and June, 1946, soaring farm prices (up almost 100%) contributed most to the high cost of living (up 38%); that factory wage rates (up 60%) outstripped living costs, whereas industrial prices (up 25%) were held well behind these wage-cost increases.

The Report to Executives tells what can, what can't, and what probably will be done to change this picture.

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BUSINESS WEEK • Aug. 24, 1946

THE OUTLOOK

BUSINESS WEEK
AUGUST 24, 1946



Return of ceilings on livestock, meat, and some of the fats and oils may retard price rises but won't stop them.

Just the same, any slowing down will be welcome.

Clearly, the tendency is toward a wage-cost-price spiral. Now the question is how far and how fast. OPA hasn't written the answer.

Lowering the cost-of-living index is the government's one weapon against another round of wage demands. Meats make up one of the large items in the index and that helps explain why the Decontrol Board picked them for recontrol.

The rise in meat prices from June to July was about 30%. That translates into 2.7% added to the cost-of-living index.

Dairy products, with a price rise of about 20%, added 1.6% to the index. Thus, in thinking about farm prices as a whole, they weren't as attractive a target for the board as were meats.

Besides, dairy prices seem to have settled down at current levels; the board was less worried about their running away than meats.

Unions' ultimate reaction to the recontrol moves can't yet be predicted with any degree of certainty.

To be sure, the C.I.O. high command has decided to try to ward off strikes at least until after election. Moreover, the unions have tied themselves to the cost-of-living index in arguing for recontrol.

Nevertheless, there was a rise of 5.2% in the index from June to July. Only about half of this will be officially wiped out by recontrolling meats. Then, too, there will be a reappearance of black markets in short order.

Will rank-and-file workers keep quiet under such circumstances?

Half-measures by the Decontrol Board may save farm-state congressman a few votes, but they don't materially alter the inflation potential.

The board rubs out half the June-to-July rise in the cost-of-living index by reimposing ceilings on meats. But a lot of things besides food have gone up since then, not to mention some other food rises.

All this adds to the problem of holding prices well enough to head off a labor demand for cost-of-living bonuses in the fairly near future.

Industrial prices, which accounted for little of the June-to-July rise in living costs, will go up faster than foods from now on.

One of the automatic factors is the restoration of dealers' margins. More basic is the business of manufacturers' getting prices that make allowance for higher costs.

By the end of 1946, the cost-of-living index will be up something like 7% and industrial prices about 10% (Report to Executives, page 45).

Looking farther ahead, the rise will probably accelerate in the first half of 1947. OPA will be dying by stages; it won't have enough subsidy money to continue rollbacks; workers will be demanding more pay.

Thus the very least the cost of living is likely to be up is 15%.

Rising production, both farm and factory, might curtail the rise, but wage increases probably will outweigh productivity as a cost factor.

Ceilings on meat will cut production, won't actually reduce prices. The

THE OUTLOOK (Continued)

BUSINESS WEEK

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Decontrol Board's idea obviously is that meat can be kept under ceilings because the huge grain crops will reduce stockmen's feed costs. That's all very well, but grains haven't yet gone down; that means the ratio of feed cost to livestock, right now, is ruinous.

That won't encourage farmers to increase production of meat animals. In fact, it almost certainly will have the opposite effect.

Meat supplies between now and October will go down due to seasonal factors, and black markets will come back blacker than ever. Then, if livestock production for 1947 slaughter decreases, the full error of ceilings on meat without ceilings on feed will become apparent.

Feed grains probably will be in oversupply next year.

The number of pigs to be born this fall for eating next spring will be off 17% by present prospects. Poultry numbers are down around 20% from a year ago. Dairy herds are smaller, beef animals fewer.

Now suppose the ratio of feed prices to meat scares raisers of hogs and cattle. That would further reduce the number of grain-eaters.

With bumper crops of wheat and oats now being harvested and the largest corn crop on record coming up, the conclusions are obvious.

Fortunately, we can increase our hog population very rapidly. Should the corn-hog ratio be favorable next spring the number of piglings born next autumn could be increased sharply—but that doesn't represent pork until the spring of 1948.

The hide-leather-and-shoe field faces new troubles. With the resumption of the black market, fewer hides will come to market and in many cases, those appearing, will be damaged through inept slaughter.

Manufacturing plants are gradually building inventory (BW—Aug. 10 '46, p9), but many companies still find themselves unable to get a proper balance. This was demonstrated again this week when Chrysler announced that plants will be closed next week due to various parts shortages.

However, the maritime workers' strike carries little threat to industry unless it becomes more effective and is prolonged.

Steel mills have some 31,000,000 tons of ore either in their furnace yards or in bins at down-lake ports, about a five-month supply. Thus, even though scrap continues short, they don't have any immediate worries.

Gasoline reserves in the Great Lakes area also are believed ample.

Most concern is expressed about coal supply in the Northwest. Shipments started late and, to Aug. 11, totaled only 21,992,076 tons against 27,652,908 for the same period last year.

Coal will back up on the mines if enough ships are idled. However, eastern consumers probably would be glad of the chance to stock up.

One major industry whose supply-and-demand situation seems to be in very comfortable balance is petroleum.

Since the industry-wide price advance from crude through products late last month, there have been few if any additional boosts and occasional reductions on products are noted, mostly in fuel oils of certain grades.

And producers continue to worry, particularly around the Gulf Coast, about a possible flood of oil from Venezuela's constantly growing output.



Painting by Dean Cornwell—"Santa Marta's Good Fruit"

Colombia is a Good U. S. Customer

"Bananas" might be the reply of a quiz program contestant to a question asking the name of Colombia's exports—but he would be starting well down the list. Many an American who knows the fine Colombian fruit does not realize that the country sells coffee, petroleum and gold, with a value many times that of its banana exports.

Colombia is the world's leading producer of mild coffee, possesses extensive petroleum resources, and is the largest producer of gold in South America.

Colombia's postwar projects will involve large expenditures in the United States. Principal imports from the U. S. are machinery, motor vehicles, raw cotton and cotton textiles, steel sheets, casings, oil-line pipe and tin plate.

The best way to conduct an export or import business on an informed basis is by using the exchange, credit and trade services of The National City Bank, which has 44 overseas Branches. Our Officers at Head Office or Branches will gladly work with you.

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Frank D. Smith is Supervisor of our Colombian Branches. For 21 years in the Caribbean area and for 17 years in Colombia, he has helped win overseas business success for National City customers, many of them new to the ways of foreign trade.

ACTIVE OVERSEAS BRANCHES

ARGENTINA Buenos Aires Flores Piaza Once Rosario	COLOMBIA Bogota Barranquilla Medellin	MEXICO Mexico City
BRAZIL Rio de Janeiro Pernambuco Santos Sao Paulo	CUBA Havana Cruces Caminos Cienfuegos La Jirga Cienfuegos Cardenas Manzanillo Matanzas Santiago	PERU Lima
CANAL ZONE Balboa Cristobal	CHINA Shanghai Tientsin Hong Kong	PHILIPPINE IS. Manila
CHILE Santiago Valparaiso	ENGLAND London 117, Old Broad St. 11, Waterloo Place	PUNTO RICO San Juan Arecibo Bayamon Caguas Mayaguez Ponce
CHINA Shanghai Tientsin Hong Kong	INDIA Bombay Calcutta	REP. OF PANAMA Panama
		ST. SETTLEMENTS Singapore
		URUGUAY Montevideo
		VENEZUELA Caracas

Every 3 seconds a customer is served overseas





THE HIGHBALL

THE DAIQUIRI

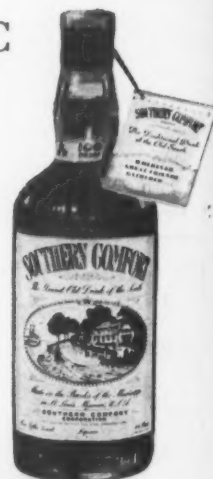
THE COLLINS

THE MINT JULEP

FOR YOURS...THIS MELLOW MAGIC

Southern Comfort

All drinks—tall ones, short ones—achieve a subtle superiority from the mellow magic of versatile, 100 proof Southern Comfort—The Grand Old Drink of the South. The bottle booklet contains delightful, easy-to-mix recipes. Why wait?



TRY THESE SOUTHERN COMFORT RECIPES

Daiquiri

1½ ounces Southern Comfort
Juice of ¼ lime
No sugar
Shake well with cracked ice

Highball

Jigger Southern Comfort
Fill with Sparkling Water

Collins

Jigger Southern Comfort
Juice ½ lime or lemon
Ice and fill Collins glass with soda
Garnish with slice of lemon, orange and a cherry

Mint Julep

Bruise mint in bottom of glass
Add 2 ounces Southern Comfort
Fill glass with fine ice; stir till frosted
Add more ice and decorate with two sprigs of mint

There's Only One

SOUTHERN COMFORT
100 PROOF LIQUEUR

America's Most Versatile Drink

SOUTHERN COMFORT CORPORATION, ST. LOUIS 3, MO.

EP

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FIGURES OF THE WEEK

THE INDEX (see chart below). *185.7 †184.2 181.0 192.4 162.2

PRODUCTION

	Latest Week	Preceding Week	Month Ago	Year Ago	1941 Average
Steel ingot operations (% of capacity).....	89.7	90.3	89.3	69.9	97.3
Production of automobiles and trucks.....	88,560	†77,825	80,985	11,505	98,236
Engineering const. awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$19,226	\$21,054	\$23,712	\$7,768	\$19,433
Electric power output (million kilowatt-hours).....	4,422	4,412	4,293	3,939	3,130
Crude oil (daily average, 1,000 bbls.).....	4,843	4,821	4,937	4,934	3,842
Bituminous coal (daily average, 1,000 tons).....	2,050	2,043	2,125	1,915	1,685

TRADE

Miscellaneous and L.C.L. carloadings (daily average, 1,000 cars).....	84	85	82	81	86
All other carloadings (daily average, 1,000 cars).....	65	65	67	64	52
Money in circulation (Wednesday series, millions).....	\$28,353	\$28,326	\$28,241	\$27,351	\$9,613
Department store sales (change from same week of preceding year).....	+29%	+30%	+26%	+19%	+17%
Business failures (Dun & Bradstreet, number).....	17	27	25	5	228

PRICES (Average for the week)

Spot commodity index (Moody's, Dec. 31, 1931=100).....	348.5	348.9	345.2	253.9	198.1
Industrial raw materials (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	202.9	204.2	214.3	167.8	138.5
Domestic farm products (U. S. Bureau of Labor Statistics, Aug., 1939=100)...	308.4	306.8	312.8	224.6	146.6
‡Finished steel composite (Steel, ton).....	\$64.45	\$64.45	\$64.45	\$58.27	\$56.73
‡Scrap steel composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.48
‡Copper (electrolytic, Connecticut Valley, lb.).....	14.375¢	14.375¢	14.375¢	12.000¢	12.022¢
Wheat (Kansas City, bu.).....	\$1.95	\$1.93	\$1.99	\$1.59	\$0.99
‡Sugar (raw, delivered New York, lb.).....	4.20¢	4.20¢	4.20¢	3.75¢	3.38¢
Cotton (middling, ten designated markets, lb.).....	35.79¢	35.88¢	35.34¢	22.24¢	13.94¢
‡Wool tops (New York, lb.).....	\$1.330	\$1.330	\$1.448	\$1.330	\$1.281
‡Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.16¢

FINANCE

90 stocks, price index (Standard & Poor's Corp.).....	141.8	†144.0	141.0	115.4	78.0
Medium grade corporate bond yield (30 Baa issues, Moody's).....	3.04%	3.03%	3.04%	3.28%	4.33%
High grade corporate bond yield (30 Aaa issues, Moody's).....	2.51%	2.50%	2.49%	2.61%	2.77%
Call loans renewal rate, N. Y. Stock Exchange (daily average).....	1½-1½%	1½-1½%	1.00%	1.00%	1.00%
Prime commercial paper, 4-to-6 months, N. Y. City (prevailing rate).....	¾-¾%	¾-¾%	¾%	¾%	¾-¾%

BANKING (Millions of dollars)

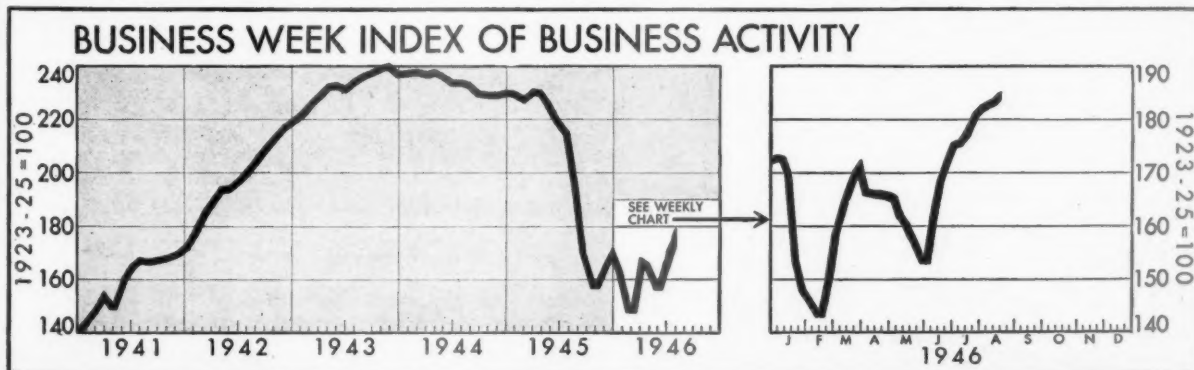
Demand deposits adjusted, reporting member banks.....	39,078	39,069	39,247	37,444	23,876
Total loans and investments, reporting member banks.....	59,910	59,786	60,869	63,094	28,191
Commercial and agricultural loans, reporting member banks.....	8,295	8,136	7,810	5,949	6,296
Securities loans, reporting member banks.....	3,208	3,308	3,617	4,428	940
U. S. gov't and gov't guaranteed obligations held, reporting member banks....	41,460	41,454	42,643	46,770	14,085
Other securities held, reporting member banks.....	3,458	3,455	3,465	3,318	3,710
Excess reserves, all member banks (Wednesday series).....	980	1,040	880	1,132	5,290
Total federal reserve credit outstanding (Wednesday series).....	24,238	24,134	23,895	22,782	2,265

* Preliminary, week ended August 17th.

† Revised.

‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.



We're building
a new plant
to make some

AMAZING THINGS

If you happen to be driving upstate in New York—in the neighborhood of Waterford—one of these summer days, you'll get a chance to see a marvelous new plant we're building there.

You may not be impressed at all. You might say, "It's got brick walls . . . an ordinary-looking water tower . . . looks like a lot of other plants."

And you'd be right. But wait a minute. The big amazement is *inside* this new plant of ours. It's there that we are going to turn out products—and enough of them—to reshape a lot of things . . .

You see, this new plant is going to make silicones—not just precious test-tube grams of that amazing stuff—but silicones by the drum and by the carload.

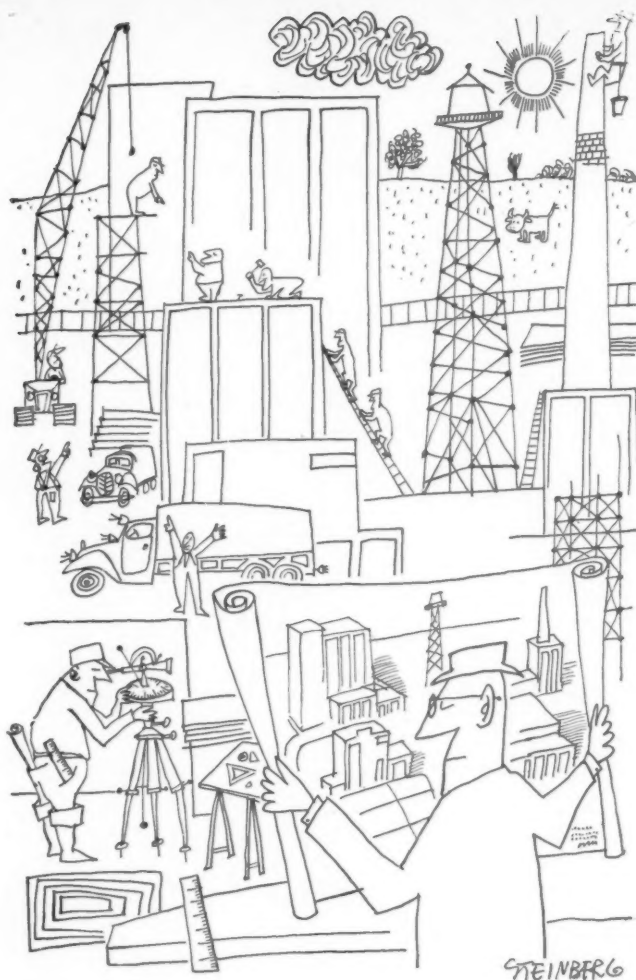
A very special kind of sand is an important raw material from which we get one of the basic ingredients of the silicones. And it is this inorganic sand that makes the silicones so incredible. Oil . . . grease . . . electrical insulating materials . . . paint . . . rubber . . . plastics . . . DRI-FILM water

repellents to apply to practically any kind of material that should shed moisture rapidly. And what products they're going to be!

Take silicone rubber, for example. It stays rubbery from 600° F to 60° below zero. You wouldn't expect any rubber but silicone to stand such an ordeal.

The same immunity to heat, cold, and moisture, too, is common to all silicone products. And that's the reason why silicones should find so many uses.

This new plant of ours will get rolling early next year. Meantime, if you would like to experiment with silicone products, you can get limited quantities from the General Electric pilot production plant—the same one that supplied silicone rubber for heat-resistant turbo-supercharger gaskets during the war. Of course, we'd be glad to help you find the most effective use for silicones in your business. Just write to the Chemical Department, General Electric Company, Schenectady, New York.



YOU'LL BE HEARING A LOT ABOUT



SILICONES

GENERAL  ELECTRIC

CD46-51

Rail Car Shortage Is Crucial

For some firms, shipping space will be factor limiting output and sales. Roads use emergency measures, but only real solution lies in new rolling stock, hard to get because of materials bottlenecks.

For the first time in more than 20 years, the United States is coming up against a really serious shortage of railway freight cars.

The rail situation got pretty tight during the war, but one way or another the roads managed to move all the freight that was offered them. Now peacetime traffic is creating a clamor for more cars than war freight ever did, and the roads don't have the cars to meet it.

Consequently, for the next three or four months at least, the question of when goods can be shipped will be as important to manufacturers, distributors, and consumers as the question of when they can be produced.

• **Shippers Feel Squeeze**—Railroads have seen the squeeze coming since early this year, when traffic estimates began to soar while deliveries of new equipment fell further and further behind schedule. Shippers have already been feeling it (BW—Aug. 10'46, p10) and can expect it to get worse from now until November.

After that, there may be a respite, but if industrial production stays high, the car situation will be a headache for another year or so. Headache in this case means more than just something else to worry about. For at least some

manufacturers, availability of shipping space will be the limiting factor in production and sales.

• **Worse After World War I**—Unless things get completely out of hand, this year's car shortage won't be the worst in history as some predictions have suggested. That dubious distinction still is held by the years just after the First World War. In 1920, the shortage ran over 100,000 for twelve weeks and hit 179,239 at the peak. At present, there seems to be nothing as bad as that in the cards for 1946 or 1947.

The present equipment shortage is trouble enough, however. Traffic experts figure that demand for cars at this year's peak will run from 975,000 to 1,000,000 a week. About the most the railroads can do with present equipment on a sustained basis is 920,000 to 930,000 carloadings a week. This indicates a shortage, at its worst, of 50,000 to 70,000 cars.

• **Seasonal Pattern**—What will make things tough for shippers is not so much the shortage at a given time as the duration of the squeeze. Ordinarily, carloadings begin to rise toward the end of the summer, hit their top in October, and slide off in the last two months of the year.

This summer, the combination of rising industrial production and an early harvest (a record-breaker for size, page 21) pushed loadings up to 921,496 cars in the week ended July 20. This topped all wartime records for carloadings and fell just short of the 1941 high of 922,884 cars.

Since July 20, carloadings have fallen off slightly, but the explanation has been lack of cars, and not lack of demand.

• **Wheat Piles Up**—The daily average car shortage was 23,741 in the week ended Aug. 3. From all over the country came reports of wheat piled on the ground awaiting cars. (Oregon and Washington farmers estimated this week that 3,000,000 bu. were stored out of doors in the Pacific Northwest.) With every available boxcar diverted to the grain states, industrial shippers were tied up, and the eastern district, predominantly a manufacturing area, reported a shortage of 5,283 cars. At the same time, the supply of gondolas and hoppers was proving inadequate for coal transportation demands created by last spring's mine strikes.

Since this year's harvest is early (by two to four weeks) the peak of demand may come somewhat sooner, but that won't mean the end of the crisis. Accumulated shortages will have to be worked off. Meanwhile, industrial production will be rising, and manufacturers will be demanding more and more cars for their products.

• **As Railroaders See It**—All in all, railroad men figure that things will stay tight until close to the end of the year.

From the railroads' viewpoint, one



ONE MAN, ONE BID, ONE AIR FORCE

Last week, Martin Wunderlich, citizen, bought for scrap more Army planes than the Army itself had at the time of Pearl Harbor. Outbidding others by \$400,000, Wunderlich, Jefferson City (Mo.) contractor, offered the War Assets Administration \$2,780,000 for 5,540 weary war-

birds—Liberators, Flying Fortresses, and P-38's—that stretch for miles (above) along Route 66 at Kingman, Ariz. (BW—Apr. 13'46, p21). Wunderlich, who says he's in the scrap disposal business until the materials situation eases, reports he has a large labor force to dismantle the planes. All usable parts, such as radios, compasses, motors, will be salvaged for possible sale; the rest will be scrapped.

of the ironic paradoxes of the present situation is that during the war they were providing 15% to 20% more transportation (ton-miles) and had no genuinely perilous car shortages. The answer lies primarily in the difference between wartime and peacetime traffic.

During the war, when a large part of the traffic was moving to ports, hauls were longer, and ton-miles per carload were higher, cars spent relatively more time moving and less being loaded. Also, average loads were heavier, both on carload and on less-than-carload freight.

• **Longer Turnaround**—Peacetime traffic takes more cars, even though the total number of ton-miles is smaller. Cars are loaded lighter. And what is more important, turnaround time is longer even though the hauls are shorter.

The best hope that the roads—and the shippers—now have of taking some of the sting out of the shortage lies in cutting down turnaround. During the war, turnaround time—the number of days that a car is tied up on a single load—averaged about 14½ days. In June of this year, it was just about the same, but it should have been less because the average haul was shorter.

• **It Means Cars**—In the week of July 20, when carloadings hit their highest point so far this season, turnaround was down to 12.7 days, but even then it was half a day higher than it was during the 1941 peak. Cutting off that half day would have been the equivalent of add-

ing another 50,000 cars to the roads' rolling stock.

The Assn. of American Railroads now is staging an intensive campaign to get shippers to hustle loading and unloading operations. Among other things, it wants shippers and receivers to put their crews on a six-day week so that cars won't be held over a week end. This may mean overtime and higher loading expenses, but if it helps ease the car shortage, shippers may find it cheap at the price.

• **Emergency Steps**—Aside from their campaign for shipper cooperation, there isn't much that the railroads can do. Line traffic is moving about as fast as it can. Pooling arrangements administered by the A.A.R. and the Office of Defense Transportation distribute cars all over the country so that any surplus on one line is transferred to a tight spot on another road at once.

Demurrage charges on boxcars and open tops (the types that are acutely short) have been hiked to \$16.50 a day after the fourth day to give receivers a financial incentive to get them unloaded.

These and similar measures will cushion some of the effects of the shortage, but they can't cure it. Fundamentally, there are only two things that would eliminate the pinch—a big drop in traffic or a sizable increase in the number of cars.

• **Shops Hold Answer**—No drop in traffic is likely unless there is a broad-gauge business slump, something that neither the railroads nor the shippers like to en-



Where plenty attests scarcity: Wheat overflows U. S. grain elevators because of too few freight cars to move it.

vision. Barring a depression, then, the answer to the car shortage has to be in the shops of the car builders.

This, in fact, is where the trouble started. Independent car builders have a theoretical capacity of about 14,000 cars a month; railroad shops can turn out about 2,000. Actual production this year has averaged only a little more than 3,000 a month.

During the war, the railroads ran their equipment until it literally began to fall apart. Now they have to retire some of their war-weary boxcars, no matter how badly they are needed.

• **Replacements Lag**—In the first six months of 1946, the roads were forced to scrap 29,000 cars, and they got only 18,256 new ones. Car ownership dropped 11,000.

The roads now have some 49,000 cars on order. ODT insists that this isn't enough and is talking about arranging for government financing of another 50,000. Railroad men say frankly that they are holding back on additional orders until they see how much of a rate increase the Interstate Commerce Commission is going to give them. But they point out that ordering equipment now is more or less an empty gesture because the car builders can't deliver on the orders already placed.

• **Materials Needed**—The big bottleneck in the car shops now is steel, particularly castings. ODT has hopes of getting some sort of priority or allocation of steel for freight cars, but hasn't made much headway with the Civilian Production Administration.

What makes the situation doubly dangerous is the average age of the freight cars now in use. Out of a total ownership of 1,770,852 cars, more than 574,000 are over 25 years old, and another 395,000 are between 20 and 25 years old. The old cars are coming apart fast, and unless production of new units picks up, the car shortage will get progressively worse instead of better.

What's Happening to Prices—Weekly Closeup

In the narrowing gap between grain futures' prices and present cash quotations, brought on by record crop forecasts (BW—Aug. 17 '46, p. 19), lies the best explanation of the Decontrol Board's refusal to reimpose grain ceilings. But since the board held that meat had risen "unreasonably" above ceilings plus subsidies, and since it expected short supplies to continue, ceilings and subsidies have been restored. (Subsidies must be reduced 50% on or before Jan. 10, however.) Prices of dairy products will be watched a little longer before action is taken.

• **Auto Parts Rise**—Manufacturers' ceilings on automotive replacement parts have been lifted from 12% to 26.8% above former ceilings. Engines and engine parts are going up 15.5%; fan belts 17.3%; dump bodies 24.5%; radiator hose 26.8%; most other parts a straight 15%.

Retail prices of bicycles are up 3.5%, refrigerators 6%, vacuum cleaners and washing machines 7%,

and electric ranges 9%. All these increases have been authorized to eliminate cost absorptions by retailers. Jobbers of iron and steel products and of lumber received the same sort of relief.

• **Sugar Guarantee Up**—To increase production, the Commodity Credit Corp. has guaranteed beet sugar processors a return on their 1946 output greater by 35¢ per cwt. than they received for 1945. Boosts in sugar cane prices will be announced soon since the purchase agreement on Cuban sugar provides that the price be raised automatically with increases in our cost-of-living index. Canned fruit prices will rise 2¢ to 7¢ per can in order to compensate for previous higher sugar and wage costs.

Cotton cloths are expected to receive another boost Sept. 1, since the price of raw cotton has already advanced 1.7% over the 32.78¢-a-lb. averages used in the calculation of the August ceilings.

U. S. Gets C.I.O.'s Demands

Big bargaining contest with government begins with threat of another strike-backed wage drive unless union price control program is adopted. P.A.C. steps up its political campaign.

Bargaining at the highest possible level, the C.I.O. is offering the Administration a period of labor peace in the mass production industries in return for what even its warmest friends in government insist is an impossibility.

The C.I.O. demands a rollback of food prices, with restoration of subsidies; vigorous price control to the limit of possibility under the present OPA law; and another labor-management conference called by the President to "protect the wage and living standards of the American people." If these demands are not met, the C.I.O. threatens another broad wage movement backed by strikes.

• **Implications**—On paper, failure to achieve these utopian demands would result in strikes wrecking the entire economic stabilization program and, incidentally, the National Wage Stabilization Board (page 98). In that event, the C.I.O. is itself perspicacious enough to foresee a "new depression."

But the picture is not in reality that dark. C.I.O. is bargaining, a business in which it has an impressive background of experience. It would be the last outfit in the world to forget that the first principle of the bargainer is to ask for more than he is prepared to settle for.

• **It Will Take Less**—There is no doubt that C.I.O. will determinedly press for its whole program; but there isn't any doubt either that it will take less without kicking over the traces. How much less the Administration will or can give the C.I.O.—and still be able to count on keeping its millions of workers busy turning out the goods that provide the only real insurance against inflation—may be the year's biggest question.

But the C.I.O. isn't losing any time in building up the pressure behind its demands. C.I.O. leaders converged on Washington last week from all sections of the country to provide the forum Philip Murray needed for launching the campaign. The C.I.O. Political Action Committee got its orders to move its 1946 electoral campaign into high gear.

• **Heat and Pressure**—The C.I.O. sessions engendered heat and applied pressure on the Price Decontrol Board and the government administrative heads, in emphasis of a policy that became apparent last month (BW—Jul.20'46, p15), when the C.I.O. made plain that it would hitch its kite to rising prices if the prices themselves could not be depressed.

What is in prospect, then, is a sensi-

tive period of at least two months during which the cost-of-living index will be watched with extreme concern. This index probably will be used as the basis for detailed wage demands, as was indicated by the United Auto Workers (C.I.O.) in filing notice with Chrysler Corp. of intention to reopen its contract with the company in 60 days, as permitted by the agreement signed last winter. Currently, the index is around 40% above January, 1941, which is 7% above the 33% cost-of-living standard being applied to wage controls.

• **Fulminations**—The C.I.O. didn't pass up the occasion to lash the Truman Administration, and particularly OPA, for permitting what it considered excessive price increases while enforcing the wage side of the wage-price policy to the letter. It reminded President Truman of his promise to hold the price line, as well as the wage line.

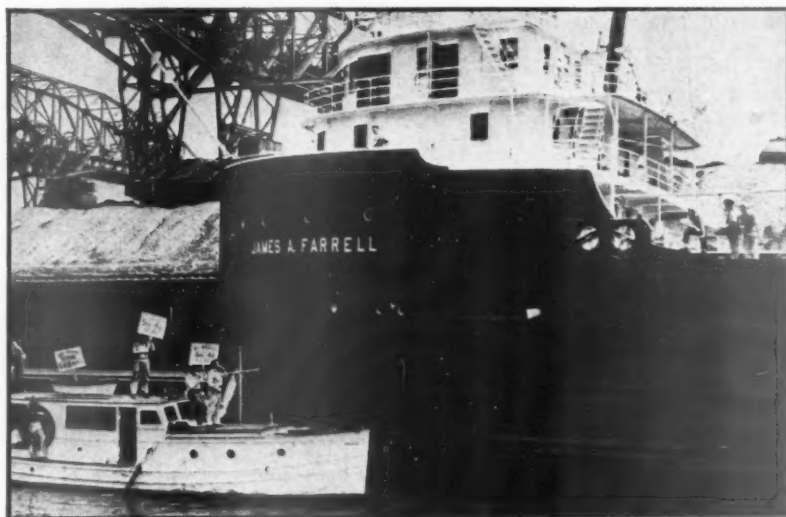
In addition, Murray disclosed for the first time that he had urged Chester Bowles, then stabilization director, as

far back as last Feb. 25, to eliminate NWSB, which he described as a "handicap" to collective bargaining. These fulminations were considered an attempt to provide the justification for C.I.O. representatives to resign from NWSB when the time is ripe.

On the whole, C.I.O. leaders don't want another wave of costly strikes. There probably won't be any major tie-ups until after the November elections, at least. It is more likely that there will be a conference to draft a uniform program before any big strikes are called.

• **Reuther Will Conform**—Walter P. Reuther, U.A.W. president, who led the parade last fall with the strike against General Motors Corp., has promised to follow C.I.O. policy.

In a four point "program of action" on price control, the C.I.O. called: (1) for consumer resistance against rising prices through buyers' strikes; (2) for the "most rigorous policy permissible under the new law" to hold prices down; (3) for restoration of food subsidies at the maximum rates until Apr. 1, when the law requires their termination; and (4) for Truman to make recommendations to Congress on monetary and fiscal policy which, by taxing speculative profits, would "remove the incentives that exist for the hoarding of goods and the manipulation of prices." On this latter point, the C.I.O. will make de-



BUT LOTS OF THE BIG ONES GOT AWAY

Throughout the Great Lakes—in small boats at Chicago (above)—C.I.O. maritime pickets sought this week, with debatable success, to shut down all lake shipping and force through a contract for a shorter work-week and overtime (BW—Aug.17'46,p91). Employers' Lake Carriers Assn. reported 85% to 90% of coal-ore-grain ships moving at midweek; the union claimed to have idled more than 200 vessels, mostly tankers and barges. Meanwhile, a family argument raged between the sailors and C.I.O. steelworkers who unloaded struck ore ships at four docks because of the no-strike clauses which are incorporated in their contracts. Nonunion seamen and A.F.L. grain elevator workers also looked the other way and stayed on the job.

tailed recommendations to the President.

• **Dollar Donations**—On the political front, rallies will be held in 49 cities from coast to coast to elicit \$1 donations from C.I.O. members as well as to stir interest in P.A.C.-backed candidates. Only 60,000 members, barely 1%, have kicked in thus far. Since 50¢ of every dollar is kept by the local P.A.C. organization, only \$30,000 has reached the New York national headquarters, which costs \$22,000 a week to operate.

Until Sept. 1, P.A.C. will continue to function with funds from the C.I.O. treasury. After that, because of the Connally-Smith act's ban against use of union funds in the general elections, it will dig into the pool of voluntary contributions, which Jack Kroll, P.A.C. director, hopes will have at least \$1,000,000 in it.

Court Trends

Supreme tribunal achieved slightly more harmony during last term, but still divided on issues affecting business.

Trends of U. S. Supreme Court decisions during 1945-46 (called the 1945 term) continue to hold significance for the executive who must chart the course of his business. As in other recent years (BW—Mar. 2 '46, p. 20), the court's major issue was the question of how far public controls should limit private rights. In the 1945 term, public control again extended its ground.

This was indicated last week in the latest of the detailed studies of trends of the court, its justices, its decisions, and its dissents made annually by Prof. C. Herman Pritchett of the University of Chicago.

• **Fewer Split Decisions**—Largely because Justice Robert H. Jackson, one of the more aggressive dissenters of previous terms, was absent during the entire 1945 term, the proportion of nonunanimous opinions fell from 58% to 46%, and the number of dissenting votes per opinion fell from 1.50 to 1.14. But the 1945 term continued high in those robust disagreements that have characterized the court ever since Roosevelt-appointed justices became an important fraction of the supreme bench. In percentage of nonunanimous opinions and in dissenting votes per opinion, only 1943 and 1944 exceeded the term just closed.

Justice Owen J. Roberts' resignation during the previous term and the death of Chief Justice Harlan F. Stone in April removed from the scene two of the outstanding dissenters of earlier years. Meanwhile Justice Felix Frank-

further sharply raised his rate of dissent and earned first place by participating in 22% of all dissenting opinions. Next in line were Justices William O. Douglas and Wiley Rutledge with 16%.

• **Patterns of Behavior**—Outlines of left-wing and right-wing blocs in the court were less clear than in previous terms but still discernible. Says Prof. Pritchett, after statistically analyzing agreements and disagreements, "The outlines of a four-judge group on the left, composed of Douglas, Black, Murphy, and Rutledge, can be seen; Reed, Burton, and Stone hang together moderately well on the right; Frankfurter appears to have some attitudes in common with all members of the court."

Study of votes and divisions, the analyst points out, indicates that the justices show well-established patterns on particular issues brought before them.

• **Business Decisions**—The court divided on 77 opinions, and 34 of these fall into three major classes directly affecting business. Majority decisions in these cases during 1945 ran as follows:

	For	Against
Federal business regulation..	12	3
Employees vs. employers....	8	0
Federal taxation.....	7	4

Of the 1945 majority-decision cases

on business regulation by the federal government four involved OPA, three the Interstate Commerce Commission, two the Wage-Hour Division, two the Federal Communications Commission, and one each the National Labor Relations Board, Securities & Exchange Commission, Federal Power Commission, and Maritime Commission.

• **Three Tendencies**—As contrasted with previous terms, the 1945 court's divisions on these cases showed no pattern of division by parties or blocs. Pritchett explains this as meaning "that the fundamental problems of federal regulatory power have been pretty well settled, and the disagreement now being recorded in regulatory cases is over ancillary issues. . . ."

Of the employee-employer cases, five involved workman's compensation and three were private suits by employees under the Fair Labor Standards Act. The left-wing bloc of four justices voted practically as a unit for the employees, while Frankfurter and Burton voted on the other side.

In the nonunanimous opinions involving federal taxation, Pritchett reports "a slight tendency observable here for the left to favor the government and the right the taxpayers."

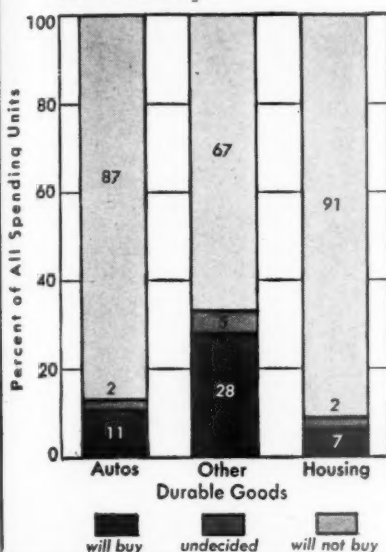


CONSTANT CURRENCY?

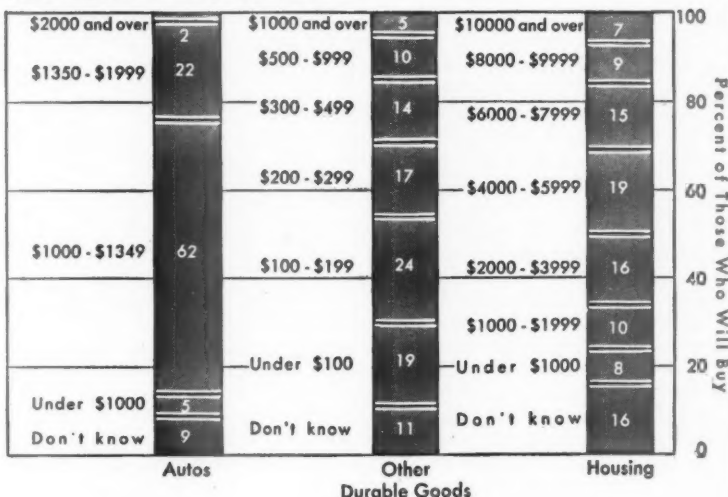
To relieve its currency inflation ills, Hungary—having repudiated the next-to-worthless pengo—is busy minting (above) new currency based on the forint (left), pegged at 11.7393 to the United States dollar. The new currency is backed in part by \$32,000,000 in Hungarian gold which was looted by the Nazis and which has just been returned from the American zone of Germany. The new coinage, thus far, has been held stable.

DURABLE GOODS' SALES PROSPECTS

Who will buy?



How much will they spend?



© BUSINESS WEEK

Buyer's Measure Is Taken

Americans' answer to queries on what they plan to purchase in autos, other durables, and housing is revealed by BAE. Heavy demand is indicated, but uptrend in prices may affect findings.

With the production of durable goods at last beginning to roll (BW—Aug. 17 '46, p15), marketing problems will gradually increase in importance.

How much money people have to spend and what they intend to spend it on are big questions. Therefore, marketing men and sales executives have been poring over the first two instalments of a survey on liquid assets undertaken by the Bureau of Agricultural Economics for the Federal Reserve Board (BW—Jun. 29 '46, p36).

The reports, with their wealth of data on savings and income distribution, have provided a jumping off point for many conclusions on how deep the sellers' market is and how long it will continue.

• Direct Answers—This week the publication of the third and final instalment makes available the direct answers of the persons surveyed to questions on their buying intentions. Information is thus provided on how many people plan to buy automobiles, other durable goods, and nonfarm housing; on how much money they plan to spend; and on how they expect to pay for what they buy.

Although the survey was conducted early in the year, the fact that production of consumer durables has been only a trickle until recently makes it more relevant now than it might other-

wise have been. The demand that the survey charted is still unfulfilled and will be operative during the coming months.

• Price Deterrent?—On the other hand, the price increases that have occurred since the beginning of the year may exert a negative effect. People may be forced to revise their earlier estimates of how much money they will have to spend to get what they want.

The survey sampled spending units rather than families. A spending unit is defined as a group of persons who pool their earnings and expenses. Thus there may be more than one spending unit in a family. The sample included 3,000 of the estimated 46,000,000 spending units in the country. It was chosen to be representative of the whole.

• Findings—Here are the answers the survey came up with: Of the units surveyed, 11% intend to buy autos during the year, 28% plan to buy durable goods other than autos, and 7% expect to be in the market for housing.

Fully four-fifths of those who expected to buy cars wanted new ones. This is one finding that is very difficult to square with economic facts. For new automobile sales almost invariably involve the acceptance of trade-ins by the dealer. These trade-ins in turn are sold on the used car market, and still older cars are accepted in trade, and so on.

Thus, new cars are inevitably a small percentage of total car sales. Since the total of prospective new car buyers amounts to only about 4,000,000, the eventual number of people who will buy used cars will probably increase sharply.

• More Money Required—The great bulk of would-be buyers planned to spend between \$1,000 and \$1,349 for their cars. With the latest OPA price increases bringing the retail price of most new cars above \$1,100, buyers will be forced to allow more money for their purchases. Only 2% of those planning to buy intended to spend more than \$2,000.

Of the people who intended to buy other durable goods, furniture, radios, refrigerators, household appliances, etc., 43% did not expect their purchases to exceed \$200. But 41% were expecting to lay out between \$200 and \$1,000. Only 5% intended to go over that amount.

• Home Buyers—The 53% of prospective home buyers who intended to pay less than \$6,000 for their houses will find it difficult to obtain them in view of the continuing rise in construction costs. It is most likely, with the real need for homes so great, that buyers will end up paying a good deal more than they originally intended.

On the whole, the spending units that intended to buy cars or other durable goods had higher incomes than those that did not intend to buy, although there were many prospective buyers of these items with relatively low incomes. The prospective buyers also ranked higher in their share of savings. The car buyers as a group had

more savings than the people who intended to buy other durable goods. The greater outlays involved made the income and savings contrasts between purchasers and nonpurchasers of housing even sharper.

• **Cash or Credit?**—Of the spending units that were planning to buy cars and other durable goods, 56% intended to pay cash, or, in the case of automobiles, cash plus the trade-in value of their old car. A further 35% were planning to borrow or use the installment plan; 9% didn't know how they would finance their purchases. Rough estimates work out to 25% of the total as the amount to be borrowed or financed on the installment plan, to an additional 25% from savings, with the remainder to be taken from current income and trade-in values.

The higher costs involved in housing reduced the number of those who intended to pay entirely in cash to 17%. Prospective buyers planned to borrow half the total cost of housing facilities, and they expected to supply an additional 25% by cashing in savings. However, in view of the continued price uptrend since the survey was taken, actual purchasers will find themselves forced to rely more on savings and borrowing and less on current income.

• **Financial Census**—While the durable goods industries will concentrate on the

above information, business as a whole will pay equal attention to the earlier reports, which provide the nearest thing to a financial census of the population that is to be had. The basic information is contained in the following table:

Income Bracket	Median Amount of Savings Held	% of Total Spending Units	% of Total Savings Held
\$ 0- 999 ...	20	20	7
1,000-1,999 ...	230	27	14
2,000-2,999 ...	470	23	17
3,000-3,999 ...	900	15	16
4,000-4,999 ...	1,450	7	10
5,000-7,499 ...	2,700	5	13
7,500 and over.	7,270	3	23
Total	430	100	100

The emphasis put on concentration in the comment that greeted the first report of the findings can be overdone. While it is true that 10% of the spending units own 60% of the savings, the concentration of savings is not nearly so great when considered alongside income. Spending units with incomes greater than \$4,000 in 1945 comprised 15% of the total number, but the savings held by that group amounted to only 46% of the total.

• **Special Cases**—The effect on averages of the relatively few special cases is quite sensational. The average amount of savings held by all units was \$1,750, but the median—the magnitude above and below which half of the units lie—was only \$450. The average is pulled up by the large holdings of the few.

The decline in the rate of savings that has taken place this year is consistent with the findings of the survey. Most of the people who expected prices would rise said they would save less. People generally are reluctant to face the reduced standard of living that saving at the expense of spending implies during a period of rising prices.

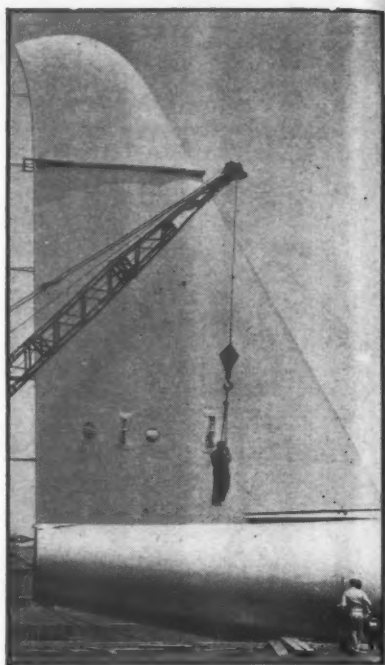
• **Liquid vs. Nonliquid**—It is difficult to determine just how much of the liquid assets held will be transferred during the course of the year into non-liquid ones. Of the units holding liquid assets of \$1,000 or more, 61% believed that it was best to hold government bonds or bank deposits. But 16% preferred real estate or securities. Only 5% believed it was better to hold both.

Rough estimates indicate that from \$3,000,000,000 to \$6,000,000,000 will be transferred in 1946 from liquid to nonliquid assets.

NEEDS AND RESOURCES

The research staff of the Twentieth Century Fund is engaged in a comprehensive study of the whole American economy. The fund expects to publish its findings early in 1947, under the title "America's Needs and Resources."

The introductory sections of the re-



PIECEWORK

At a graving dock in Long Beach, Calif., a workman helps fit the tail fin to the fuselage of Howard Hughes' oversize flying boat, the Hercules. The plywood and plastic giant, in the works for four years (BW—Jun.16'45, p48), should be ready for test flights early next year. By then Hughes may be sufficiently recovered from his recent accident to act as test pilot.

port will analyze the wartime growth of production, paying attention to trends in productivity, population, savings, and income. The main body of the text will be given over to detailed estimates of our 1950-1960 needs in the fields of food, housing, clothing, transportation, etc. Similar estimates will be made of plant and equipment demands, and of urban and regional redevelopment needs. The final section will attempt to forecast what we can produce if we operate at high levels throughout the decade.

A few months after publication of the volume, the highlights will be summarized under the title "U. S. A. in 1950," heavily illustrated by graphs and pictorial charts. The whole tenor of the reports will be similar to the now partially outdated 1934 studies of the Brookings Institution on "America's Capacity to Produce" and "America's Capacity to Consume" and the later report on "The Structure of the American Economy" put out by the National Resources Committee in 1939.



AFTERMATH

A year ago last week the war came to an end; but the struggle of war-contract termination (BW—Aug.17 '46,p17) still rages. On the first anniversary of V-J Day, one of the larger termination negotiations concluded when James H. Marks (left), executive vice-president of Packard Motor Car Co., and Maj. T. B. Merrill, contracting officer for the Army Air Forces, signed documents formally terminating the \$875,000,000 contract for production by Packard of Rolls Royce aircraft engines and parts.

Golden Flood

U.S. grain harvest reaches toward an all-time record, but operating controls may be kept for reasons of national policy.

If international and domestic political considerations were out the window, any bright sophomore in Economics I could figure out in general terms what 1946's bumper crop of grain (BW—Aug. 17 '46, p. 19) would do to supplies and prices, hence to agriculture and to industrial processors of cereal raw materials.

The 1946 crop of wheat, corn, oats, barley, rye, and soybeans seems headed for an aggregate exceeding 6,500,000,000 bu. Never before was this much grain produced in the U.S. (or probably any other country) in a single year.

• **The Catch**—The crop is enough to supply all domestic needs, meet any foreseeable requirements for relief and commercial shipments overseas, and still reestablish normal carryovers. Hence it might seem obvious that prices would fall, users would have plenty of grain for all purposes, and economic controls upon grain would be dropped.

But this year the problem is not that simple. Government controls upon grain prices and utilization remain either in effect or ready at hand, and few men in the grain trade are bold enough to believe they know for sure which way Washington will jump.

Whatever their original basis of actual or apparent need, operating restrictions upon grain users exist today quite as much to keep underfed folks abroad feeling that we share our crusts with them as to provide the actual food.

• **Possibility**—Any realistic appraisal of the future simply in terms of grain supply is futile. Using the bare statistics for guidance, the forecaster could point only to either immediate or early removal of all restrictive rules.

Basic legal justification for the Decontrol Board's elimination of price controls on grains was supply ample to hold down prices. The Secretary of Agriculture will find it hard to justify continuation of operating controls on any grain in such abundant supply as not to require price ceilings.

Principal restrictions which might thus disappear, to the delight of millers, bakers, housewives, brewers, and distillers, are those on the use of wheat in the milling industry and of grains in spirits and beer. These two uses have accounted for domestic consumption only slightly above or below 550,000,000 bu. in each year of the past decade.

• **Millers' Complaint**—For 1946 the Dept. of Agriculture has set up 450,-

000,000 bu. as the consumption goal. To achieve this, it has limited mills to 85% of last year's grind and requires extraction of flour at least equal to 80% of the wheat berry.

The reduction in grind has saved what it was intended to save, but the 80% extraction rule has probably wiped out half of that saving by increasing wheat consumption beyond what it would have been at the previous 72% national average. Reasons: (1) Bread made from 80% flour dries out faster and molds faster, thus causes household waste of bread; (2) farmers unable to buy commercial feed because of diversion of 8% of the wheat berry from millfeed into flour have been forced to feed to their livestock and poultry wheat that otherwise would have gone to market. Millers say grimly that the 80% extraction order has forced hogs to eat human food, forced people to eat hogfeed.

• **Less Wheat Feeding**—Lots of wheat is being fed to fowl and animals now, but most of this use will end when the new-crop corn begins to reach the cribs. Always excepting the abnormal incident by which government-owned wheat was diverted to feed during the recent feed shortage, little wheat ever goes down the gullets of egg, milk, and meat species except in the mixed-farming areas where corn is the normal feed but where wheat is raised on farms which also raise poultry and livestock.

The big wheat-growing areas of the

West lack the poultry and livestock. Hence it is chiefly in the territory from Fargo and Topeka to Buffalo and Richmond that wheat is fed instead of sold—and there in volume only when the corn runs out.

• **Corn Harvest**—There is little chance that corn will run out in the twelve months following next October. The government forecast on Aug. 1 showed 3,488,000,000 bu., biggest crop ever. Some forecasters in the grain trade at that time considered the federal figure 200,000,000 bu. below the probability. Since then, rains in the Corn Belt have increased crop prospects importantly. A midwestern expert last month made a 1 to 8 bet that this year's final corn crop figures will reach 4,000,000,000 bu., and the man who covered it is now beginning to worry about the outcome.

Until three or four years ago, farm disappearance of wheat (excluding the annual 85,000,000 bu. for seed) plus any used in commercially ground feed and direct feeding averaged around 105,000,000 bu. In the crop year ended last June 30, about 300,000,000 bu. were fed on farms. With corn running out of our ears, feeding of wheat should fall to 150,000,000 bu.

• **Lower Foreign Needs**—All official Washington estimates of wheat carryovers, crops, and consumption have been definitely conservative, pointing toward need for careful management. With a fairly good crop this year al-



SQUARE GLASS IN A ROUNDHOUSE

Modern building techniques now adorn a type of housing not hitherto distinguished for aesthetics. Atchison, Topeka & Santa Fe Ry.'s roundhouse at Kansas City, Kan., has a wall of glass block panels (above), used mainly in private homes and offices. Special smoke flues help keep the roundhouse clean. Modernization of this building at a total cost of \$500,000 was first step in the road's over-all renovation program. The next step will be to build a \$1 million maintenance plant for the line's 80 diesel engines.

ready in the granaries of Europe and North Africa—75% of prewar normal but 130% of last year—the need for relief shipments from this country is dwindling.

Total overseas shipments from the 1946 U. S. crop could be made to set cereal diets in relief countries at levels exceeding anything ever programed by UNRRA boss La Guardia in his rosiest dreams, and still not faze U. S. domestic supplies.

• **Prospect for Meat**—Whether the huge U. S. grain crop will greatly increase supplies of meat on U. S. tables is something that depends largely on Washington. Regardless of the Decontrol Board's action this week, good beef will be more plentiful next year than in recent years if farmers decide that prices for grain-fed cattle will pay them for their feed and labor and accordingly buy range cattle this fall to convert their cheap corn into steaks. If the future looks less promising, the range steers and heifers will be butchered without benefit of corn feeding, which means tougher beef right now and less next summer.

Pork will be scarce in any event until next fall, which is as soon as spring-farrowed pigs from sows bred this fall can be marketed as butcher hogs. If the farmer decides that Washington will hold prices at levels which will not pay out for him, the porcine birthrate next spring may bode lean days ahead for those who are fond of their bacon and pork chops.

Sizing Up Radar

Airlines, being conscious of system's limitations for their purposes, move slowly in making and testing adaptations.

Commercial airlines are testing war-developed radar devices to determine the type of installation that would be most useful to their operations. But full-scale adaptation of radar to commercial operations is still far in the future.

In answer to critics who ask why radar is not installed immediately in all commercial planes to reduce the possibility of accidents, the airlines point out that, while radar, like television and jet propulsion, has taken on the aspects of a magic word, it is as a matter of fact no cure-all.

• **What Is Involved**—Radar, so far, has been strictly a military development. Hence, a considerable amount of reconversion is necessary before its use in commercial flying becomes feasible. Developing a proper technique for its use and training for those who use it are at least as important as the effectiveness of the device itself.

Like a medical X-ray, radar gives a two-dimensional shadow-picture of a three-dimensional field. And, again like an X-ray, no matter how good the shadow, it is of no use without proper interpretation, which can come about

only with long experience and training.

• **Human Element**—Another obstacle is the reluctance of many airline pilots to trust radar. This repeats a phase of airline operations encountered ten years ago, when pilots first flew by instruments. Some were reluctant to trust their instruments when they couldn't see the ground. Some never made good instrument pilots. It required basic changes in pilot-training to develop the right kind of men, and it took years.

Present airline experiments with radar relate chiefly to its use in blind landings at regular airports.

• **G.C.A. System**—The ground control approach system (G.C.A.), used extensively during the war in military operations, utilizes a truckload of equipment on the ground with a screen on which the shadow of the approaching plane is seen by the ground crew. Movement of the picture enables the crew to tell the pilot what to do to keep on the glide path.

G.C.A. equipment is available as surplus, and can easily and quickly be converted to commercial use. But most airlines feel that many methods should be tried out before standardizing on any.

• **Divided Opinion**—A number of pilots who have tried G.C.A. have been enthusiastic over it. But many are dubious. They feel that complete dependence on the ground in blind landings would jeopardize the enviable safety record of commercial airlines as compared with that of military aviation.

For this reason, RCA's Teleran (BW—Mar.23'46,p63) will probably be well received when it is ready, a year or two from now. Teleran combines the ground-guidance feature of G.C.A. with a screen in the airplane for the pilot to use as a check.

There are other systems now, and there will be still others, but these are the principal ones now being considered. And many airline officials tend to the view that it will be better in the long run to wait until a general all-purpose radar is developed, rather than to concentrate now on one that is good only for landing at regular airfields.

AIRLINES RUN OWN FIELD

Detroit's airport problem seems to have been solved, at least temporarily, by the decision of six of the seven airlines now serving the area to operate the 1,450-acre Willow Run field themselves. This is the first time that a group of airlines has jointly operated a major airport (BW—Jan.26'46,p44).

The six lines that have already begun to transfer their operations to Willow Run are Chicago & Southern, Eastern, Northwest, Pennsylvania-Central, TWA, and United. American Overseas, Pan American, and Trans-Canada, all recently certificated to operate into



NEW ATTACK ON AN OLD ENEMY

High above an Illinois cornfield, the operator of a specially equipped tractor sprays hybrid corn with a DDT preparation in an experiment to determine whether the much-publicized insecticide will be effective against the corn borer—a pest which cost American farmers almost \$40,000,000 last year. The preparation used for the test is Syndeet, an agricultural insecticide developed by the chemical division of the U. S. Rubber Co. (BW—Mar.23'46,p56).



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Detroit, are also planning to use the field.

The holdout is American Airlines, which has transferred its operations from Detroit City Airport to Detroit-Wayne Major (formerly Wayne County) Airport. It is still possible that American will also move to Willow Run, however, since its agreement with the Wayne County Road Commission is not yet final.

None of the airlines considers Willow Run a permanent solution to the problem. The 30-mile distance to Willow Run from downtown (BW-May 11 '46, p31) has long been an objection to use of the site.

For the time being, Pennsylvania-Central has an agreement with the University of Michigan, which holds temporary possession of the property under a War Assets Administration lease, to operate the airport through a subsidiary corporation. The airline already has plans for restaurant, shops, a garage, and other facilities.

Dealers Sensitive

Auto sales agencies start public relations program to answer car-hoarding and other criticisms of buyers.

Adverse publicity heaped upon automobile agencies has prompted the National Automobile Dealers Assn. to institute a public relations program designed to establish the dealers in more satisfactory light.

The dealers are struggling under a variety of complaints and charges against them. Rumors of car-hoarding have been rife (BW-Aug. 10 '46, p29). Dealers have been singled out for criticism because of their successful moves to obtain prewar discounts.

• **The Dealers' Answer**—Customers have complained the loudest, contending that dealers have loaded cars with numerous extra accessories which they were forced to buy in order to get delivery.

The dealers are worried about these charges because they say they can be readily explained. In answer to car-hoarding charges, for example, they point out that General Motors reports of U. S. car production and sales run almost equal—and they maintain that other companies' ratios are the same. They point out that carrying charges, insurance, and other expenses would make car storing undesirable despite any possibility of increased profits later on.

• **Blame Shifted**—The dealers declare that the large-volume service work and the end of losses on used car trade-ins do not have the salutary effect on profits generally assumed. Meanwhile, they



BOMB OR BOMBAST?

Fresh from the atomic bomb demonstrations at Bikini, Soviet physicists Michel G. Meschergakov (left) and Simon Alexandrov visited the non-secret cyclotron at Berkeley, Calif., last week, touched off an explosion of their own. Questioned about Russian atomic research, Alexandrov implied his nation planned a Bikini demonstration of its own in "the measurable future," then backtracked—claiming he had been mistranslated.

maintain, the small volume of new cars available for handling requires a full prewar profit, especially in view of increased operating costs.

Detroit considers that the institution of a 5% "handling charge" is nothing more or less than the prewar "pack" which auto makers made such a strenuous—and futile—effort to eliminate in the late thirties. But the auto dealers throw the blame for a handling charge of that size back onto the auto companies, asserting that today's inspection standards are such that repair work is required far in excess of normal.

• **Competitors, Maybe**—The dealers have less to say about customer complaints of being forced to buy more accessories than they ordered. Most dealers charge such practice to competitors. They say that the accessories they themselves sell have generally been put on the cars by the factories, and they have no choice but to deliver them. This retort is generally vociferously denied by the makers.



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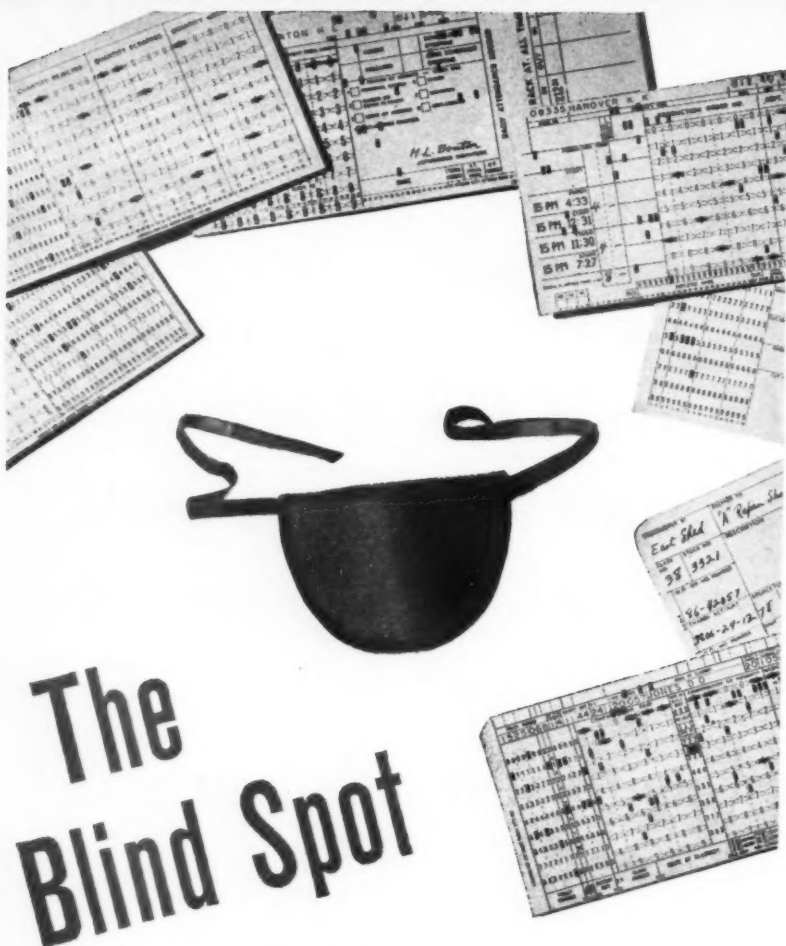
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The Blind Spot

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SOUTHBRIDGE, MASSACHUSETTS
BRANCHES IN PRINCIPAL INDUSTRIAL CITIES

New Power Issue

A.P. & L. Co. proposal to build electric plant at site of Army dam injects question of possible government economies.

A proposal by Arkansas Power & Light Co. has given a new twist to the controversy over expansion of public power by playing up to President Truman's economy drive.

The company has applied to the Federal Power Commission for a license to construct a \$7,500,000 power plant at the Bull Shoals flood control dam which the Army Corps of Engineers has contracted to build on the White River, in Arkansas.

• **Money Appropriated**—In this instance, the Army engineers have been authorized to build both the dam and a power plant. The money has been appropriated, and the engineers have made no decision against building the power plant themselves.

If \$175 per kilowatt is a reasonable cost for hydroelectric generating capacity, then perhaps \$90 per kilowatt of it would be fairly attributable to that part of the project (powerhouse, turbogenerator, and switchyard) which a utility company would construct. Multiplying this figure by the kilowatt capacity to be created gives a figure that is bound to make the economy-minded take notice of what use of private instead of public funds for the construction of power plants would mean.

• **Significant Angle**—Noteworthy, too, is the fact that such a saving would entail no further expansion of public power under the policy written into the flood control act of 1944, which put the marketing of power at Army dams into the hands of the Interior Dept.

Before that, the Corps of Engineers, being primarily interested in flood control and not in power marketing, normally had sold the power at the dams to utility companies.

In the old days, several such licenses as that sought by A. P. & L. were granted to private power companies, thus bringing power plants into existence without expenditure of additional public funds. But, with the burgeoning of federal water control and development policy, the membership and thinking of the Federal Power Commission have shifted.

• **FPC's Policy**—Barring intervention by the White House, the commission probably would deny serious consideration to any application involving a hydroelectric site in which any of the government construction agencies had exhibited an interest.

Fierce opposition to the granting of

A. P. & L.'s application can be expected from the Interior Dept., whose Southwestern Power Administration has been established to market the output of Bull Shoals and 29 other dams (built, authorized, or proposed) in the area.

Washington figures that the company's reason for going to considerable expense to prepare detailed plans and specifications is to force the hand of FPC, extract a decision with which to publicize the case, and then take it to court.

• **A Wedge?**—The issue of government economy would hardly come within judicial purview, but it may be very pertinent to Truman's insistent demand that a balanced budget be achieved. That demand has already fouled up the power construction programs of both the Interior Dept. and the Army Corps of Engineers.

Whether there is a wedge sufficiently wide to reopen the door to private generation and distribution of power from Army-built dams is something else again, however.

TRAINING OIL EXECUTIVES

Seeking to create a reserve of trained, experienced executives, Standard Oil Co. (New Jersey) this week expanded its executive development program for itself as well as for its affiliated companies.

One aspect of the program involves sending selected men to educational institutions for special courses, during which they receive regular salaries plus expenses. A few already have received 13-week courses in management at Harvard's Graduate School of Business Administration.

An adviser, George B. Corless, has been named to coordinate the program, which in its educational respects is similar to that instituted by Monsanto Chemical Co. for its scientists (BW—May 25 '46, p54).

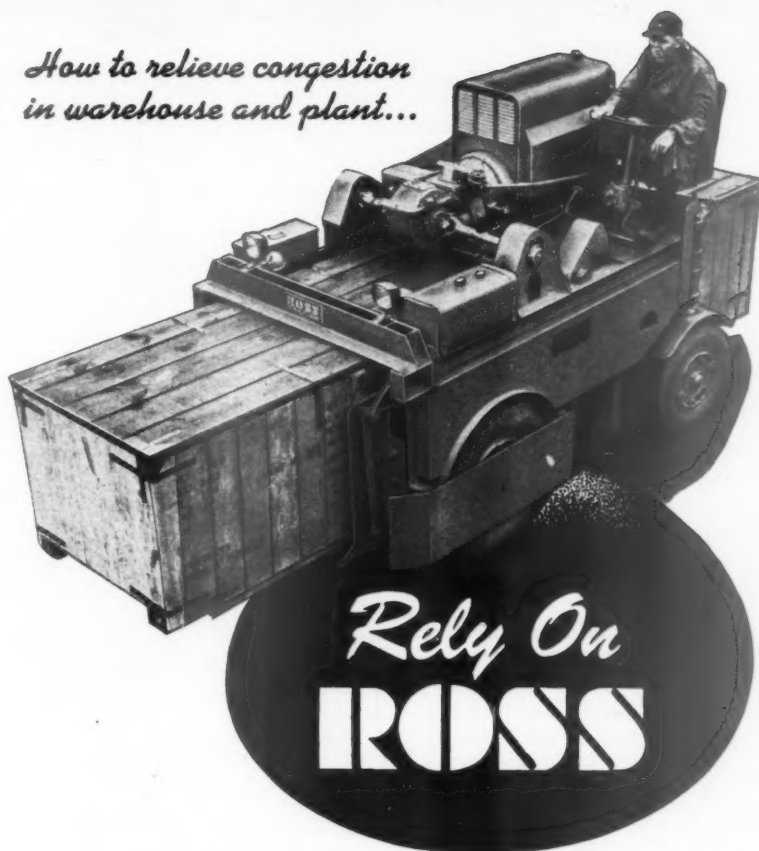
GULF TIDELANDS LEASED

Blithely ignoring the controversy over state vs. federal title to tideland oil areas (BW—Aug. 10 '46, p46), the Louisiana mineral board last week accepted bids from oil companies for lease of more than 260,000 acres of Gulf lands.

Except for 20,000 acres, the successful bidders are under no obligation to undertake drilling operations for five years, holding their rights merely by paying annual rentals. Prices paid were among the lowest since 1940—probably reflecting oil companies' reluctance to commit themselves heavily until the tidelands issue has been settled in the courts.

Bids on three tracts, over whose sovereignty Louisiana is in dispute with Texas, were rejected.

*How to relieve congestion
in warehouse and plant...*

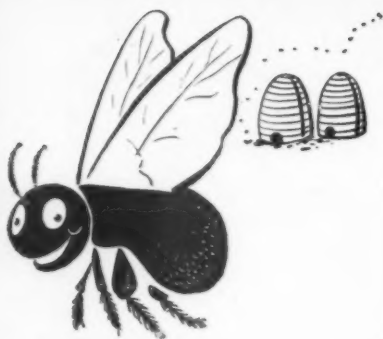


FOR THE ECONOMIES OF OUTDOOR STORAGE!

Take advantage of the unmatched ability of ROSS Straddle Carriers and Lift Trucks to handle heavy loads—up to 30,000 pounds—on rough ground, mud or snow. These rugged machines will enable you to store your materials out-of-doors—where space is cheaper and less restricted—and help you lick the problem of congestion in warehouse and plant... The complete facts about how The ROSS System of Straddle Carriers and Lift Trucks cuts handling costs all along the line will convince you—send for ROSS BOOK BW-86.

THE ROSS CARRIER COMPANY

300 MILLER STREET, BENTON HARBOR, MICHIGAN, U. S. A.
DIRECT FACTORY BRANCHES AND DISTRIBUTORS THROUGHOUT THE WORLD



B for BUSY...

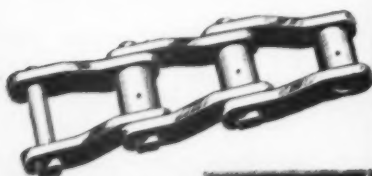
Busy doing what? Busy making honey, of course. An unmitigated specialist, the bee. Honey and honey alone is its line, and in its line it's a terrific perfectionist.

SPROCKET CHAINS and sprocket chains alone are our business.

What we don't know about making honey would fill a shelf of books. What we do know about making sprocket chains would fill the same shelf. That's all we do—make sprocket chains. We're specialists—and even, we like to think, perfectionists. So it's natural that when a manufacturer has decided upon economical, efficient, trouble-free sprocket chains to solve his problems in power transmission or materials handling, he brings those problems to us at Union Chain.

THE UNION CHAIN AND MANUFACTURING COMPANY
Sandusky, Ohio

All types of steel chains and sprockets for the transmission of power and the conveying and handling of materials.



Union HB Offset Side-bar Roller Chain is manufactured in a complete range of strength and in sizes from 1½" to 6" pitch. Recommended for heavy duty drives.

**UNION
CHAINS**

Safer Streets

Cities' drive for improved illumination aims at reduction in traffic mishaps and in crime. Buffalo has typical program.

In Buffalo, workmen are busy installing the first modern street lights the city has had in 20 years. This is the initial phase of a public works program that will see every heavily traveled thoroughfare in the city relighted within the next four years.

• **Dual Purpose**—The Buffalo work is typical of programs that are being started in many cities, towns, and villages across the nation. From Chicago, where \$8 million is to be spent in relighting the city, to Vernonia, Ore. (population 1,412), which will install new lights in the business district at a cost of \$1,500, America is lighting its streets and thoroughfares.

Main objectives for better illumination are (1) to increase traffic safety, and (2) to reduce crime.

During the war, when the coastal cities were dimmed-out, and the inland cities were browned-out, the public acquired a new appreciation of the significance of street lighting. Reduced illumination brought a tremendous increase in traffic accidents, as well as in crime. But even before the wartime dim-outs two-thirds of the nation's traffic fatalities occurred at night, when traffic volume was only one-third that of the daytime.

• **Deterred by Costs**—Although installations of modern lighting have proved that nighttime accidents can be reduced as much as 50%, and in some places as much as 90%, progress in this direction has been slow because of the high costs.

Buffalo, for example, was aroused to action only when a postwar survey showed that 79% of all the city's traffic fatalities in a five-year period occurred at night on poorly lighted streets.

Last January the Street & Traffic Safety Lighting Bureau, the National Safety Council, the National Committee for Traffic Safety, and the International Assn. of Chiefs of Police launched a nationwide educational program to promote better street lighting.

• **Blamed for Crime**—A poll of police officials revealed that 96% believed that adequate street lighting could reduce the number of traffic accidents and that 71.5% considered their own cities without adequate lighting. Police officials also attributed 43% of crime to inadequate lighting of city streets.

Several cities, including Hartford, Detroit, Salt Lake City, and Spokane, furnished figures showing their streets were made safer by increasing the amount of illumination.

Additional surveys and studies are being planned in conjunction with the Illuminating Engineering Society which has just published a revised edition of its street and highway lighting code.

FORD SPREADS BUYING

Ford Motor Co. has set up a decentralized purchasing program to enable purchasing agents in 13 branch assembly plants to buy direct in their local communities to fill needs for maintenance, repairs, and general stores items. About \$10,000,000 per year will be spent at branches under this program, rather than at River Rouge.

The change is expected to simplify efforts of many firms, especially wholesalers, to obtain Ford business. Ford expects closer contact with suppliers to result from the decentralization, as well as development of new sources.

Increased company spending in and near the assembly plant areas is another result anticipated; purchases will be made from the nearest sources available.

The 13 branches are at Buffalo, Chicago, Dallas, Kansas City, Long Beach, Louisville, Memphis, Norfolk, Chester, Pa., Richmond, Calif., Somerville, Mass., St. Paul, Minn., and Edgewater, N. J.



Street scenes—before (left) and after (right)—in Greensburg, Pa., offer a study in contrasts between antiquated street lighting and improved modern systems which city fathers contend will dispel crime and accident shadows.

Growing Bigger Every Day



Metal Plating is Big Business—and Mallory is Helping to Make it Bigger

BABY shoes, preserved in silver or bronze, illustrate a sentimental use of metal plating. Look around you and you will see hundreds of more matter-of-fact metal-plated objects—automobile accessories, bathroom fixtures, typewriter parts, plated silverware.

Metal plating performs many useful services for the American consumer. It adds to the life of commercial products. It provides ornamentation and decoration. It conserves the use of precious metals. And because it does all this, and more, it has become a great and ever-growing business.

A basic requirement of the metal plating process is the conversion of electrical current from AC to DC. To do this, a rectifying device is used. One of the best known devices is the Rectoplater, built by Mallory and supplied to the plating industry by the Udylite Corporation, of Detroit. Heart of the Rectoplater is the Mallory Magne-



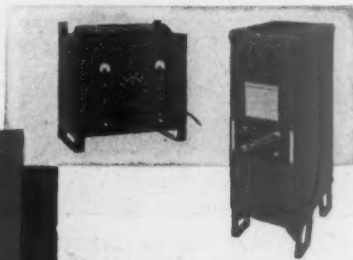
Mallory Magnesium-Copper-Sulphide Rectifiers are the heart of the Rectoplater, the modern Battery Charger and many other modern rectifying devices. (Far Right) A Mallory Rectopower* Supply and the Udylite-Mallory Rectoplater.*

*Reg. U. S. Pat. Off.

sium-Copper-Sulphide Rectifier, originally developed by Mallory, to meet the requirements not only of metal plating but of many other industries.

Mallory is right in the forefront of electronics and metallurgy. It has a program of continuing research that aims at developing new products and improving existing ones. Its precision parts—capacitors, electrical contacts, rectifiers, resistors, switches, vibrators, resistance welding electrodes—are firmly established in American industry.

Among other developments which Mallory engineers have brought into being are the interval time switch that makes the automatic washing machine automatic . . . the midget dry battery that is being widely adopted by hearing aid manufacturers . . . component parts that are playing a vital role in the growth of television. More than 30 years of experience lie behind these achievements. It is experience that is available to any manufacturer who wants to apply technical gains to industrial applications for the consumer's advantage.



MALLORY SERVING INDUSTRY WITH ELECTRICAL CONTACTS—RESISTANCE WELDING ELECTRODES—SPECIAL NON-FERROUS ALLOYS—SEARINGS—CAPACITORS—RESISTORS—RECTIFIERS—VIBRATORS—SWITCHES—OTHER PRECISION ELECTRICAL AND ELECTRONIC PARTS

MALLORY TROPICAL DRY BATTERIES . . . Originally developed by Mallory for the U. S. Army

P. R. MALLORY & CO., Inc., INDIANAPOLIS 6, INDIANA

Ride a Postwar Wonder Train!



It's lounge car luxury at coach fares
on the new PERE MARQUETTES
—best way to travel between
Detroit, Lansing, and Grand Rapids

1. IT'S YOUR FIRST TRIP on one of the new PERE MARQUETTES and it's an eye-opener! You step aboard a streamlined, Diesel-powered dream of a train. You whiz between Detroit and Grand Rapids 40 minutes faster than the

best previous time. You get extra speed, extra comfort, extra luxury without adding a penny extra to your fare. All seats on these postwar wonder trains are reserved for the price of a regular coach ticket!



2. LOUNGE CAR COMFORT IN EVERY COACH! Relax and smoke — listen to the radio—in the lounge section that's part of every coach. There's porter service. And the whole train is air conditioned, spotless. Spacious powder rooms and lavatories, too.



3. EVERY TABLE A DINING NOOK! Look—tables in these new diners are set diagonally into alcoves along the wall. You get more aisle space, more eating space, more privacy. Grand food at modest prices, and—NO TIPPING, PLEASE!



4. SEATS THAT WENT TO COLLEGE! A famous university measured 3,857 travelers to pack these train seats with solid comfort. Completely adjustable. Lots of leg room. Individual twin-lens spotlights for easy reading. Aren't you glad you came?

3 FAST TRIPS EACH WAY			
(Eastern Standard Time)			
	DAILY	WEEK DAYS	DAILY
Lv Detroit	9:15 AM	12:15 PM	* 5:15 PM
Ar Lansing	9:47 AM	2:04 PM	6:47 PM
Ar Grand Rapids	10:55 AM	3:15 PM	7:55 PM
Lv Grand Rapids	7:30 AM	1:00 PM	* 5:25 PM
Lv Lansing	8:58 AM	2:15 PM	6:34 PM
Ar Detroit	10:30 AM	4:00 PM	8:05 PM

* Late afternoon trains one hour later on Sundays and holidays

ALL SEATS RESERVED AT REGULAR COACH FARES

Roll in Luxury on
The PERE MARQUETTES

w
ou
y.

Indians' Mark

Code of standards is set for jewelry and curios made by Southwest tribesmen to protect them from mass producers.

For three-quarters of a century visitors to the Southwest have been taking home Navajo rugs and Indian jewelry as mementos. The brave with his hand-hammered silver rings and bracelets and the squaw with her curiously wrought wool rugs eked out a hard living on their arid reservation (less than 5% irrigable), and the tourist business grew.

• **Mass Production Comes**—But now something new has been added. The rugs have remained unduplicated by the arts of a machine age, but curio merchants at Albuquerque, Santa Fe, and Gallup, N. M., have found ways to produce a "just as good" Indian jewelry by means of tools, dies, and stampings, and they have captured a lush national market among curio dealers, gift shops, and department stores.

Unorganized individual craftsmen of the reservations gained a volume of sales amounting to perhaps two or three million dollars a year, a figure soon outstripped by single factories. The paternalistic U. S. Indian Bureau tried to protect the tribesmen by getting a ban on advertising mass-produced jew-



In his own home, a Pueblo Indian silversmith hammers out his wares. A craftsman of the old school, he maintains his primitive working methods in the face of mass-production competition in the "hand-made arts."



How to Waltz through "Overtime"

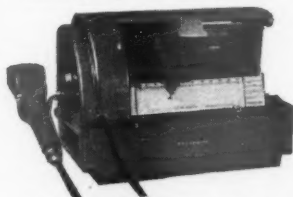
When you're due to catch the midnight sleeper, and still have two days' work to get out of the way . . .

And your secretary has a long-standing date with the "one and only" . . .

That's one time when you'll both appreciate Dictaphone Electronic Dictation. While she dances, you can waltz right through last minute letters, memos, instructions, reports . . . And in the morning she'll transcribe them.

It's a real practical demonstration of how Dictaphone Electronic Dictation doubles your ability to get things done. The new close-talking Dictaphone machine is small, compact, convenient . . . occupies less desk area than a letterhead. According to your needs, you can choose a desk microphone, for private office and recording across-the-desk conversations, or hand microphone, to insure privacy and screen out nearby noises. Hand or foot control, whichever you prefer.

Your local Dictaphone representative will be glad to show you models for cabinet, stand or desk-top use. Consult the phone book, or write for descriptive literature. Dictaphone Corporation, Dept. E-91, 420 Lexington Avenue, New York 17, N. Y. In Canada: Dictaphone Corporation, Ltd., 86 Richmond Street, W., Toronto 2, Ont.



DICTAPHONE

Electronic Dictation

The word **DICTAPHONE** is the registered trade-mark of Dictaphone Corporation, makers of Electronic and Acoustic dictating machines and other sound recording and reproducing equipment bearing said trade-mark.



Mixmaster

OF THE MEGACYCLES

Even the clean, clear tones of FM radio can be only as sharp as the man who blends and controls them. Long learning and lots of doing teach him the touch, this rider of the gain . . . this mixmaster of the megacycles!

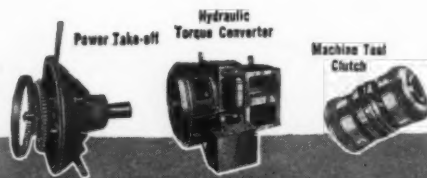
That same degree of training and experience is essential, too, with specialists in the transmission and control of power for Industry's busy machines.

That's why the manufacturers of Twin Disc Clutches and Hy-

draulic Drives have not depended on production and laboratory research alone. Twin Disc Engineers are equally "at home" in the field... studying, analyzing and ironing out the latest wrinkles in power linkage.

This practical approach is one reason why so many leading manufacturers confidently look to Twin Disc for a sound solution to all their linkage problems.

TWIN DISC CLUTCH COMPANY, Racine, Wis.
Hydraulic Division, Rockford, Illinois



SPECIALISTS IN INDUSTRIAL CLUTCHES SINCE 1918

clay as "genuine Indian hand made"; so the manufacturers advertised their products as "Indian made" and got by. Actually, they hired and taught Indians, both Navajo and Pueblo, to do the work. Originally, the Indians hammered their gew-gaws out of Mexican pesos. The newcomer manufacturers bought coin silver in sheets of specified gage.

• **New Trademark**—Indian jewelry of all kinds now sells in a volume of approximately \$10,000,000 per year. Alarmed, the sponsors of genuine slow-process hand factoring have formed the United Indian Traders Assn., Inc. Members of this association are middlemen between the Indian craftsmen and the buying public. Their letterhead carries the statement: "Organized for the perpetuation and protection of handmade Indian Arts and Crafts." A stamp and mark have been registered for the use of licensed members (and their craftsmen clientele). No piece of silver is to bear the mark or stamp unless its workmanship is substantially that expected in good hand craftsmanship, its weight is such as to secure sound construction, and its design elements are typically Navajo or Pueblo.

One compromise appears in the standards list. Dies are to be applied "only by Navajo or Pueblo craftsmen with the aid of nothing other than hand tools and vise," but after the manufacture of an object has been completed by a Navajo or Pueblo craftsman within these regulations, it may be "cleaned, buffed, and polished by Indians or others without restriction as to methods or equipment used."

AXTON-FISHER SUIT REVIVED

Holders of Class A common stock of the Axton-Fisher Tobacco Co. will have an opportunity to prove in court their charge that they were fraudulently deprived of \$2,451,202 by Transamerica Corp., Axton-Fisher's parent company.

The Third U. S. Circuit Court of Appeals at Philadelphia last week ordered U. S. District Judge Paul Leahy, at Wilmington, Del., to reinstate a suit for recovery of this sum, which he dismissed last Sept. 18. Judge Leahy had ruled that no cause of action was stated.

The amount involved represents the difference of \$159.20 a share between the \$80.80 which the public holders of 15,395 shares of Class A stock received on July 1, 1943, when the directors of Axton-Fisher called the stock, and the \$240 they say they would have received in a liquidation of the company on May 31, 1944.

The plaintiffs assert that Transamerica, controlling Axton-Fisher through ownership of more than 70% of its stock, was in a position to reap a windfall through the sale of large stocks

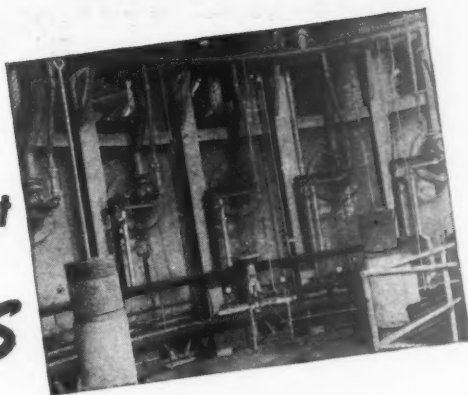
World's largest rotary furnace

AT

The Timken Roller Bearing Company plant

CANTON, OHIO

proves adaptability of GAS



An outstanding example of adaptability of Gas and Gas equipment in successfully solving any industrial heating problem is seen in the world's largest rotary furnace used to heat alloy steel billets for piercing into seamless steel tubing at the Canton, Ohio plant of The Timken Roller Bearing Company.

Here, equipment engineers were called upon to build a furnace for heating round billets up to 10" in diameter and 12' in length, which would do the job more economically than existing equipment.

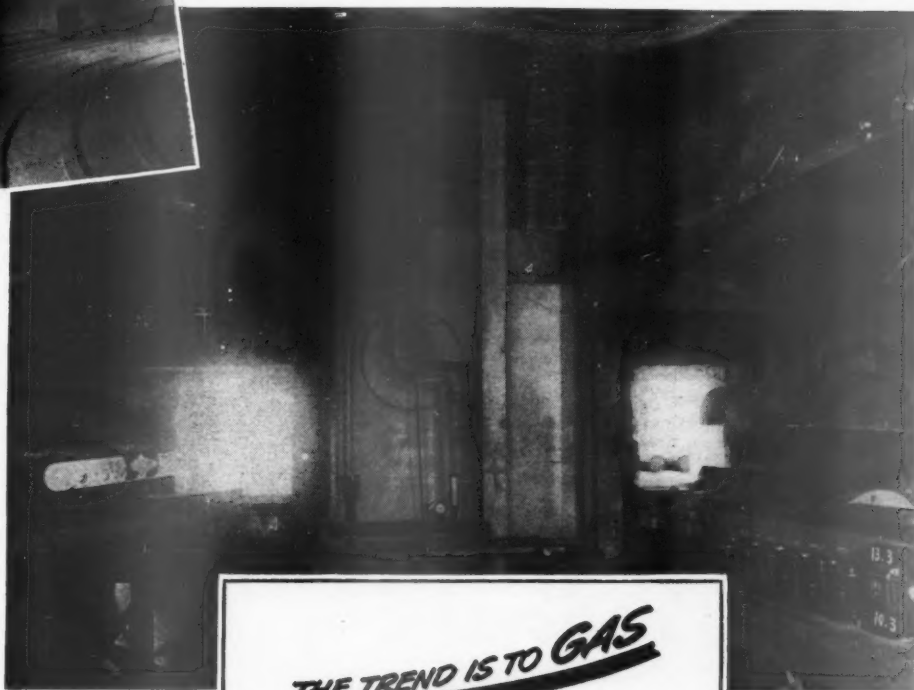
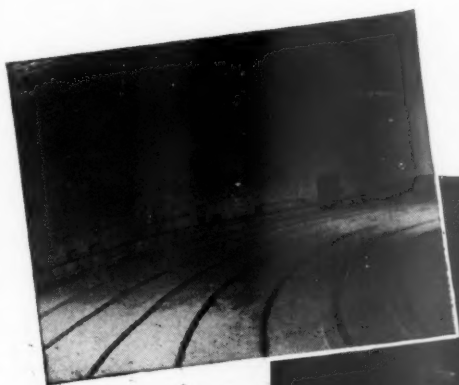
The result is this Gas giant with 2100 sq. ft. of hearth

area and a capacity of 80,000 lb. per hour, when heating billets up to 2250 °F. Speed of the hearth ranges from 2 to 8 hours per revolution. Temperature control is fully automatic and a single operator can determine the temperature and location of each billet at any instant during the heating period. Since the start of operations, this Gas furnace has saved an average of 2% in scale loss alone. Maintenance costs are at a minimum and six men per turn were released for other plant duties.

You, too, will find that Gas equipment manufacturers have a rare understanding of your problems and how to solve them. Consult the Industrial Engineer of your local Gas Company, who is your liaison man with the entire Gas Industry.

AMERICAN GAS ASSOCIATION

420 Lexington Ave., New York 17, N. Y.



THE TREND IS TO GAS

FOR ALL
INDUSTRIAL HEATING

WOOD-LOK* GLUE

NEW!

*a cold run,
fast setting
RESIN WOOD glue...*

that can be handled and worked in 20 minutes

WOOD-LOK* challenges all wood glues! It is the only type of resin glue that can be handled and machined after a clamping time of 20 to 30 minutes *instead of 6 to 8 hours!* It sets with a speed comparable with hot animal glue.

WOOD-LOK* is cold run. Its bonding quality is never weakened by constant reheating. It's a liquid — *ready for use.* Nothing has to be added, soaked, heated.

WOOD-LOK* does not harden in the pot. Its characteristics never change during shipment, application or use. Its storage and working life is months — not 3 to 4 hours.

WOOD-LOK* eliminates 'chilled' joints. No need to heat the glue . . . to heat the wood . . . to heat the room above a comfortable working temperature.

WOOD-LOK* is durable. Humidity changes will not cause it to embrittle. It remains resilient — and never forms a rock hard abrasive film to dull saws and knives.

Amazing? There's nothing else like it. It'll shorten your assembly lines, free floor space, speed production, stop glue waste, produce stronger and more durable finished woodwork.

What's the color range of **WOOD-LOK*** glues? From uniformly controlled pure white *which dries colorless . . . leaves no glue line* to darker shades designed for specific uses.

WOOD-LOK* is made by National Adhesives — a specialist for half a century in all types of industrial adhesives and a pioneer in the development of synthetic resin adhesives. It's a wartime 'RESYN' development.

WOOD-LOK* is available — NOW! Address: National Adhesives, 270 Madison Avenue, New York 16; 3641 So. Washtenaw Avenue, Chicago 32; 735 Battery Street, San Francisco 11; and other principal cities. In Canada: Meredith, Simmons & Co., Ltd., Toronto. In England: National Adhesives, Ltd., Slough.

(*Reg. applied for)

National
ADHESIVES

EVERY TYPE OF ADHESIVE FOR EVERY INDUSTRIAL USE

Where to Use

WOOD-LOK* Glue

For Joint Assembly Operations . . . where limited clamping time or rub joints are necessary to speed production . . . or where an economically applied, fast setting, durable bond is required to produce:

Radio and Music Cabinets
Pencils
Display Cases and Cabinets
Lock Corner Boxes
Dowel Work
Caskets
Kitchen Cupboards
Instrument Cases
Ping Pong Tables
Suitcase Boxes
Wood Patterns
Bar and Restaurant Fixtures
Wood Novelties and Toys
Humidor Boxes
Toilet Seats
Picture Frames
Wood Trays
Bookcases
and other products

of leaf tobacco which had risen in value from \$6,362,000 in 1942, to more than \$20,000,000 a year later.

Transamerica, it is alleged, withheld from stockholders the knowledge of this increased valuation of stocks and gave no indication of its intention to dissolve Axton-Fisher, leaving it the sole owner of the company and thus in a position to corner the profit.

OPA Buffer

West Coast firm acts as a service bureau for its clients' dealings with OPA. Ex-clerk of ration board originated idea.

A service which, for a fee, takes over all of its clients' dealings with OPA on both price and rationing matters has been in successful operation in San Francisco for over three years.

• **Looking to Future, Too**—Founded in May, 1943, the service is the brainchild of Dallas H. Gray who, during the preceding year, had gained an intimate knowledge of the problems faced by business firms in dealing with OPA, through his position as chief clerk of a local rationing board. It was originally known as the Price & Rationing Service Bureau; is now the Price & Rationing Service Bureau of the Business Institute, Inc.

The latter corporation was set up recently to operate as a management engineering and counseling service after the final demise of OPA eliminates the bureau. Gray is president of the new corporation, John A. McNamara, also a former San Francisco OPA executive, is vice-president, and Gray's son, Frank B. Gray, is secretary. There are three other employees.

The bureau has about 200 accounts, including hotels, restaurants, retailers, wholesalers, creameries, cheese factories, and primary distributors. The minimum contract term is one year, and the fee,

RESTAURANT OWNERS OPA DIFFICULTIES?

Are you losing money because of high food cost? Then you need price adjustments from the OPA. Let us, with our years of experience and trained personnel obtain these difficult adjustments for you

PRICE & RATIONING SERVICE BUREAU
690 Market Street EXbook 0052

Following the revival of OPA, San Francisco's Price & Rationing Service Bureau bought space in the newspapers to remind old and prospective new clients of its service: assuming all of the responsibility for a client's price and rationing problems.

Management's-eye-view of the Santa Fe



View from fireman's seat inside cab of one of Santa Fe's great fleet of Diesel locomotives. Engineer sits at right.

Many of the fine things you are enjoying and are about to enjoy on the Santa Fe are the direct result of riding the line rather than riding an office chair.

You can see more railroad from the cab of a locomotive than you can from a typewritten report. It all goes to prove that foresight is better than hindsight.

That's why you so often find the top executives of Santa Fe at the "head-end" of Santa Fe trains. They ride in front by desire and by design to see what lies ahead.

The modern railroad executive, who has grown up with tracks and trains and who has spent a large part of his life in railroading, looks at a section of track not in terms of ties and rails but in terms of the possible improvements for better service to shippers and passengers.

Coupling long experience with mature vision, he translates new ideas into action with immediate decision which is both practical and timely.

This practical "Management's-eye-view" has led to the straightening of curves, improved roadbeds, new bridges and many other things which pay off in terms of better service for both passengers and shippers. It has led also to improvements of design and handling in the locomotives themselves.

From time to time during the next few months, Santa Fe will announce a number of new features improving its service and equipment. Watch for them.

SANTA FE SYSTEM LINES

Serving the West and Southwest





ALL SET

...for safer
flying!

More than 30,000 lives have been saved with Irvin Air Chutes. Now Irvin offers the sensationally new *Chair Chute*... a chute that makes flying definitely safer for the executive and business man... a chute with these important features:

- 1 SIMPLICITY**... You don't need special training to use the Irvin Chair Chute.
- 2 COMFORT**... You never have to "wear" the Chair Chute or put it on... except in an emergency.
- 3 CONVENIENCE**... You don't have to carry the Chair Chute around or store it... it is always in your plane... in the back of the chair... ready for instant use.
- 4 SAFETY**... The Chair Chute can be buckled on in a jiffy in an emergency... and you are ready for any eventuality. Lives have already been saved with this chute.

Irvin Chair Chutes are available... now... for every type of cabin plane... large or small. Organizations and individuals are already ordering Irvin Chair Chutes for company and personal planes. Write at once for full particulars about this new kind of protection for the planes you own or plan to buy.



FEEL SAFER... BE SAFER
with the new Irvin Chair Chute

Every seat in the Beechcraft transport illustrated above is fitted with an Irvin Chair Chute. The chairs have the same beauty and comfort as de luxe airplane seats... plus the "built-in" safety of an Irvin chute. Chair chutes cost little... take little time to install.



**IRVING
AIR CHUTE CO., INC.**
1068 JEFFERSON AVENUE, BUFFALO 8, NEW YORK

payable monthly, is $\frac{1}{3}$ of 1% of the client's gross sales for the month.

• **Records Checked**—The first thing the bureau does when a new contract is signed is to examine the new client's original registration for rationed goods to find out if he is getting all he is entitled to. Such errors have shown up, Gray says, in 30% to 40% of the cases the bureau has handled.

For example, Gray discovered that OPA, in computing a restaurant's meat point quota, had taken only the beef sales into account and ignored the lamb, pork, etc. When Gray called the error to OPA's attention, the quota was hiked from 1,364 lb. to 5,684 lb., retroactive for four months.

• **Acts in Price Matters**—The bureau acts to obtain warranted price-ceiling increases for its clients and, in cases where violations have occurred, goes to bat with OPA if it considers the penalty excessive.

With new OPA regulations now in effect, Gray sees opportunities to provide additional service. For one thing, restaurants, which previously weren't allowed to raise prices unless they could prove hardship, may now obtain relief on showing of greater cost.

LCT Freighters

Reconverted warcraft in service on Gulf of Mexico will connect 21 cities. Use of Army trailers to speed shipments.

A war-surplus LCT, its length extended to 198 ft. by a 72-ft. midsection, pushed its way across the Gulf of Mexico last week to inaugurate the latest in water freight service—a combination of motorship and motor truck operations.

• **Serves 21 Cities**—Conceived and inaugurated by the Bintliff brothers, David C. and Chester D., of Houston, the new service of Gulf-Canal Lines, Inc., authorized by the Interstate Commerce Commission (BW—Jun. 8 '46, p. 36), involves a route embracing 21 cities from Brownsville, Tex., to Mobile, Ala.

Within the port terminal areas of the cities, Gulf-Canal offers door-to-door service, as freight is carried in modified Army pontoon bridge trailers. These trailers are loaded by the shipper at his warehouse or plant, then are pulled by a truck tractor to the wharf and onto the LCT. Each such ship can handle 15 trailers plus one tractor. At destination, the procedure is reversed.

Gulf-Canal now has two more LCT's undergoing necessary modification, will eventually use a fleet of four LCT's and two larger (203 ft. long) LSM's. This will permit three services weekly, New Orleans to Mobile; three, New Orleans

SERVING YOU THROUGH SCIENCE

*Everyday is
washday at the mines*



Why you get such "clean" coal—

Perhaps it never occurs to you that your coal is *clean*. But such impurities as slate (which you can't burn) have been removed by a washing operation, performed daily in the preparation plant at the mine.

Anthracite coal is washed in agitated, sand-laden water. The slag sinks to the bottom, the coal floats.

Sharp particles of sand in the wash water rushing through the pipes are highly abrasive, particularly at turns and bends.

Metal pipe wears out fast in this service, sometimes lasting

only six months. But properly engineered U. S. Pilot Flexible Rubber Pipe often lasts ten years or more.

This is because resilient rubber repels the sand's cutting action . . . because water acts as a lubricant for rubber, reducing frictional wear...and because the rubber is compounded to resist corrosion.

Maybe you have a problem that engineered rubber could solve...maybe the answer has already been found by our scientists and can be quickly applied to your operation. Let's talk it over.



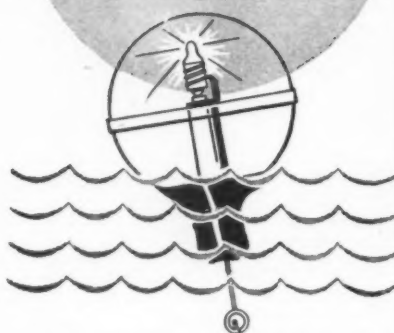
Sharp sand and mine water rush through this U. S. Pilot Flexible Rubber Pipe at the rate of 300 gallons per minute.

UNITED STATES RUBBER COMPANY

1230 Avenue of the Americas • Rockefeller Center • New York 20, N. Y.

PLAIN TALK ABOUT PLASTICS

Pity the poor fish



Here's the newest wrinkle in "can't fail" fishing... of all things, a night fishing float made of Fibestos, Monsanto's tough cellulose acetate. When the catfish bites, a little light comes on inside to notify the modern, scientific fisherman!

What's more, Monsanto research has made other contributions to fisherman's luck... new, stronger rods, reels and lines... plugs and lures of amazing variety and ingenuity... even plastic creels to carry home the limit-size catch!

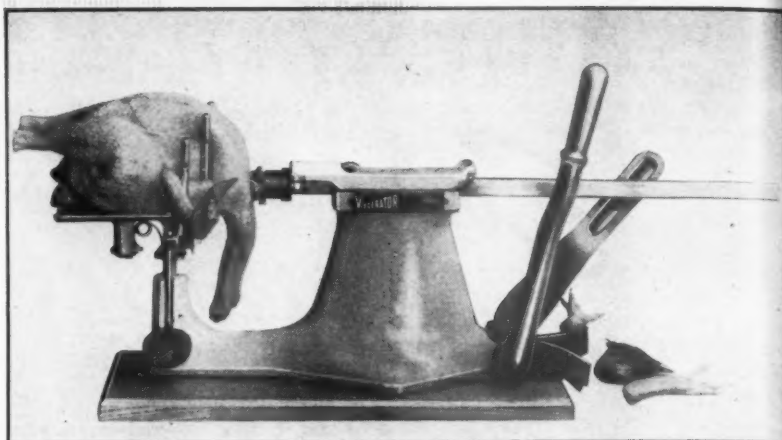
All joking aside... plastics today are serving in the most unusual places, doing old jobs in scores of industries better than it was ever imagined possible with traditional materials. Perhaps it will pay you to investigate if a Monsanto Plastic wouldn't improve performance, step up sales of your products. Remember, the Family of Monsanto Plastics is one of the broadest and most versatile in the industry. Tell us your problem, your ideas; a prompt reply, with explanatory literature, will be sent. Simply address: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield 2, Massachusetts. In Canada, Monsanto Ltd., Montreal, Toronto, Vancouver.

Fibestos: Reg. U. S. Pat. Off.



**MONSANTO
PLASTICS**

SERVING INDUSTRY...WHICH SERVES MANKIND



FOR CLEAN BIRDS AND CLEAN BUTCHERS

A mechanical butcher's boy that helps clean out a chicken—or a duck or a turkey—in a few minutes made its debut at the National Retail Meat Dealers Assn. convention in Cleveland recently. One motion of the handle lops off head and feet. The craw is removed by hand; then another pull on the handle propels the "Viscerator's" head through the fowl, pushing the viscera out a knife slit under the tail. Cube Steak Machine Co., Boston, makes the device.

to Houston; and two, Galveston to Brownsville.

• **Deck House Added**—To adapt the LCT's for peacetime freight use, it was necessary to add a pilot house and flying bridge atop the existing armor-plated pilot house, provide a deck house forward to house the ramp machinery, and modify the invasion-type landing ramp to meet Coast Guard bulkheading rules.

While municipal port facilities will be used, the shallow draft of the ves-

sels makes it feasible to unload them by driving their prows onto a beach or a concrete apron.

Gulf-Canal is in process of establishing joint rates with the Federal Barge Lines and the American Barge Line to provide service between Gulf ports and cities on the Mississippi and Ohio rivers; intends also to seek connecting rates with Texas motor and rail carriers. It soon will petition the ICC for authority to operate Pittsburgh to Houston.

Major Advertising Media Show Big Gains

With the repeal of the excess-profits tax and the incidence of strikes and material shortages, many an ad man felt that the advertising picture in the first half of 1946 might be pretty spotty. Such has not proved to be the case. Tabulations made last week by the research division of the National Broadcasting Co. show the following walloping gains among the national media:

	1st Half 1945	1st Half 1946	% Change
Network radio	\$ 95,257,276	\$ 99,536,837	+4.5%
Magazines*	\$133,261,816	\$166,853,406	+25.2
Newspapers** (lines)	128,000,000	159,488,000	+24.6
Outdoor advertising*** ...	\$ 25,000,000	\$ 31,750,000	+27.0

* Source: Publishers' Information Bureau.

** Source: Media Records. Figures represent lines of advertising space in 52 principal cities. Dollar figures not available.

*** Source: Standard Outdoor Advertising, Inc.

Commenting on the showings of two of its competitors—the printed media and billboards—NBC says:

"Generally speaking, printed media are in a better position today than last year inasmuch as there is more paper available. . . . This has resulted in magazine advertising increases by the toilet goods, clothing, and food industries; and increased newspaper lineage placement by the automotive, financial, alcoholic beverage, and food classifications. The 27% increase in outdoor advertising volume is mainly due to new business in the automotive, gasoline and oil, and food categories."

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Yes, when one businessman asks another: "Which company will do the best job for me on all insurance covering employees?"...

The most frequent answer is: "The Travelers."

WHY?

Because it means better handling of all the complex and varied forms of employee insurance. Travelers men are experienced and have the background that can be found only in an organization which pioneered in Workmen's Compensation and Group Insurance.

Because lower insurance rates, as well as employee and public goodwill, often result from the safety engineering and sickness prevention services of The Travelers.

Because you and your business organization benefit from the intelligent handling of employee claims. The broad ex-

perience of Travelers claim men is a definite help to you at all times. The Travelers country-wide organization may be of untold value at any time. These Travelers claim men each year pay more than half a million employee claims which involve injury, illness, death, surgery, and hospitalization.

Because a plan that meets your business needs now, and that can be revised from time to time as these needs or conditions change, can be developed best by your own insurance broker or a Travelers agent, working with the specialized experts of The Travelers.

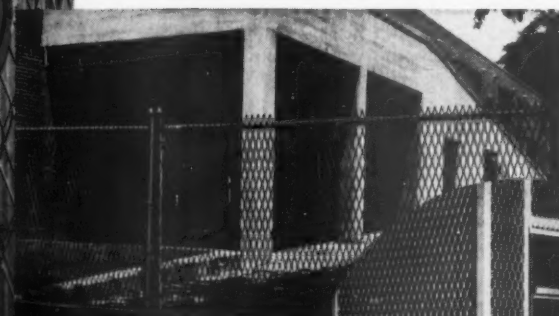
On *all* forms of Employee Insurance, you will be well served by *The Travelers*

The Travelers Insurance Company, The Travelers Indemnity Company, The Travelers Fire Insurance Company, The Charter Oak Fire Insurance Company, Hartford, Connecticut.



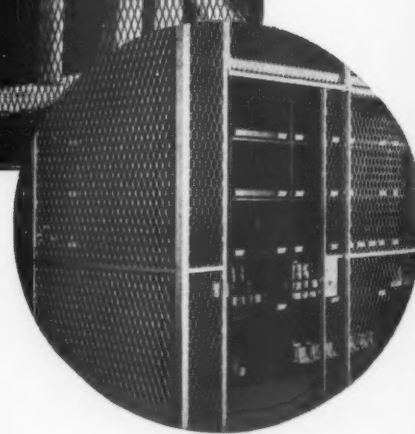
SECURITY *BY THE SQUARE YARD* **WHEELING EXPANDED METAL**

YOU might call Wheeling Expanded Metal "Security Metal" because of the hundreds of ways in which it can insure security around your plant. Light but amazingly strong, it safeguards the man on the ladder. It safeguards property as a ravel-proof, rugged fence. Prevents trespassing. Guards machinery and danger spots to prevent accidents. Ideal for tool room and other partitions, paint racks, lockers, sanitary shelves.



Makes a good-looking job and a strong one, too.

An ideal material for all kinds of partitions where vision and ventilation are needed.



OTHER USEFUL WHEELING PRODUCTS

Heavy Pails • Roller Cans • Oily Waste Cans
Concrete Reinforcement • Metal Lath
Steel Floor and Roof Deck

WHEELING CORRUGATING COMPANY
WHEELING, W. VA.

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Return to Co-ops

Unions, losing long-time wariness of such plans, push the idea locally, especially as way to solve housing problems.

From time to time, at the urging of social planners and liberal theorists, labor groups have provided the capital and membership for cooperative enterprises in any number of diverse fields.

One of the rocks on which the once-powerful Knights of Labor—precursor of the A.F.L.—foundered was producer's cooperation, an instrument by which the Knights thought they could modify capitalism and secure the advantages of proprietorship for their adherents.

The Knights' unhappy experience as entrepreneurs has kept the American labor movement sour on producers' cooperatives for more than two generations.

• **Changed Attitude**—Even consumer cooperatives are often regarded by labor leaders with a jaundiced eye. What efforts there have been by union organizations to establish cooperative enterprises have been small-scale and local, earning, at best, only a benevolent but

distant interest from the national union office.

Lately, however, the unions' official preoccupation with shortages, prices, and the cost of living has led to a resurgence of interest in the cooperative idea. And now, for the first time in decades, influential labor leaders like Philip Murray and Walter Reuther are spurring such interest in union circles.

• **Housing to the Fore**—Naturally enough, because the housing shortage is one of the acute problems of wage earners in industrial centers, the new cooperative schemes developed to their most advanced stage are those designed to provide homes. Most recent undertaking of that kind is in South Bend, Ind.

Last month, the housing committee of the Studebaker U.A.W. (C.I.O.) local, whose members have had a co-op food store for seven years (BW—Feb. 23'46,p78), announced formation of a nonprofit cooperative housing corporation. The co-op, called Edison Park, Inc., will build a 500-unit housing project on a 155-acre tract on the northeast edge of the city.

The 500 members participating in the enterprise have already paid in \$300 apiece, and the co-op has paid \$42,000 for the land. Preliminary contracts for construction of the housing project will be let this month.

• **Individual Houses**—Plans call for individual two- and three-bedroom houses, chiefly of brick construction. By group purchasing and mass production methods, the co-op hopes to keep the cost of the houses to around \$5,500 apiece. The project is being designed with a park layout, winding drives, and a commercial area for cooperative stores and services.

Total cost is expected to reach \$4 million. Co-op leaders indicate that several insurance companies are interested in making a mortgage loan on the project. Each house will be individually financed, and the owner will hold individual title to it.

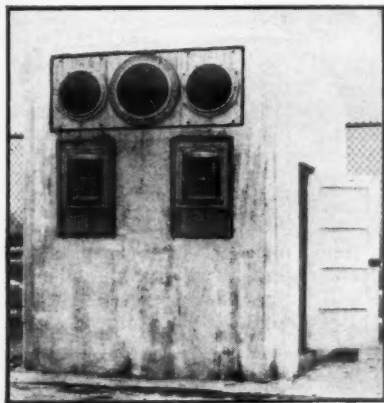
Because 80% of the co-op members are war veterans, no difficulty is expected in obtaining materials.

• **A Waiting List**—Though membership is open to anyone, Studebaker workers make up the majority. Organizers say that the project already has 111 applications on the waiting list. They hope that eventually 650 families will come in.

Plans for similar housing developments are reported under way at Racine, Wis., where C.I.O. unions are sponsoring a project, and at Mishawaka, Ind., where veterans employed at the United States Rubber Co. plant plan to build 250 cooperative homes.

Other recent union doings on the co-op front:

(1) The Michigan C.I.O. Council



STOPLIGHTS FOR PLANES

Aerial traffic lights, to supplement overburdened ground-to-plane intercommunications system, are being installed at the Chicago Municipal Airport. The system, to be completed within two years by Crouse-Hinds Co. at a cost of \$50,000, consists of 18 signal houses (above), one at each end of each of the field's nine runways. An array of five lights facing the runway controls taxiing planes and those about to take off, while two lights on the back, visible for 15 miles, direct incoming traffic.

WOULD A LOAN OF \$10,000 OR MORE HELP YOUR BUSINESS

Did you know that it is possible to obtain loans secured by warehouse receipts?

Did you know that you can obtain these warehouse receipts *without moving your inventory off your own premises?*

No matter what your merchandise consists of—or where it is located—it may be utilized as collateral for loans of \$10,000 or more.

Write today for a copy of "PROFITS ON YOUR PREMISES." It explains how you can borrow on warehouse receipts issued by Douglas-Guardian.

DOUGLAS-GUARDIAN WAREHOUSE CORPORATION

50 Broad Street,
New York 4, N.Y.

Gentlemen: I am interested in obtaining a loan on inventory. Please send me a copy of "Profits on Your Premises."

Name _____

Address _____

BW-8-24



He doesn't punch a time clock!

HE WORKS, officially, from eight to five. But the clock cannot shut off his brains. He is one of our engineers who continually looks forward and has practical visions of the crane of the future. Sometimes, even at night, he puts his thoughts on paper.

The problem he attempts to solve is this: How can we build a better crane for less money? It must be reliable, safe, enduring and have the lowest operating and maintenance costs.

No tricky so-called modern design interests him if it does

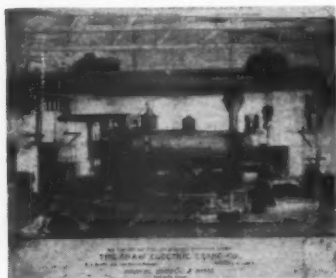
not embody the homely honest qualities which have always been fundamentals in all our cranes.

So our present cranes are the ultimate of what we know and can do within the sensible specifications of doing the job at the lowest cost.

If you need crane service—one crane or many—and if you will give us the salient facts of your lifting requirements, we will recommend the best crane or combination to do your work in the most efficient and economical way.

• • •

This picture shows "Shaw" Crane No. 3, fifty-six years old and still working daily. (We still supply replacement parts.) The first multi-motored electric traveling crane was designed by A. J. Shaw, the founder of the Shaw Electric Crane Company—the parent of the Shaw-Box Crane Division of Manning, Maxwell and Moore, Inc.



Send for Catalog No. 214



SHAW-BOX Cranes

MANNING, MAXWELL & MOORE, INC. • MUSKEGON, MICHIGAN

Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.

Air Races Revived

Time was when a fair share of pilots in the annual air speed classic—the National Air Races in Cleveland—flew bobtail crates with souped-up engines retrieved from some junkyard.

Next week, when the races will be revived after their wartime lapse, the ships—as might be expected—will be of strictly military complexion.

As things stand, 18 contestants have signed up for the famed Thompson race on Labor Day. Eight are flying P-51's; three each are using P-63's and P-38's; two have P-39's; one a Corsair; and one hasn't announced his ship. The field will be limited to twelve starters who will race over a 30-mile course for a total purse of \$40,000, the Thompson Trophy, and the championship rating. The winner gets \$15,000 plus the additional \$2,000 Ludlum award if he breaks the 283-m.p.h. record which was set by Roscoe Turner in 1938.

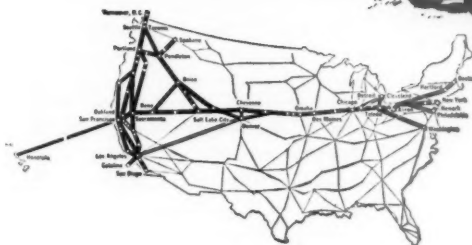
In the long-distance Bendix event (Van Nuys, Calif., to Cleveland Airport), 25 entries are on the books so far. Of these, 14 are using P-38's; five P-51's; two P-63's; one each an FG1D, an A-26, and a P-47; one entry has not named his ship. Purse in this race is \$25,000 (\$10,000 for the winner) and the field is limited to 50 starters. Present record is held by Frank Fuller—7 hr. 14 min., set in 1939.

In the new \$25,000 Weatherhead Trophy event, only jet planes are eligible. This year the affair will be an all-Army show, with P-80 Shooting Stars featured.

will stage a series of meetings on Sept. 28 and 29 to plug the cooperative idea. While the parent C.I.O. body has no idea of getting into the co-op business, it will bless local projects. (United Auto Workers-C.I.O. already has sponsored co-ops in Flint, Pontiac, and Ann Arbor, and now is trying to establish new ones in Jackson and Iron Mountain.)

(2) International Ladies Garment Workers Union (A.F.L.) has told the Federal Communications Commission that if the union gets more frequency modulation broadcast licenses, it will see to it that members can buy FM sets cheaply. The plan would provide for a tie-up with some manufacturer to make AM-FM sets to retail to union members (via their locals) at around \$35. Prospective initial order would be 20,000 to 25,000 sets.

4 ways your business can profit by **UNITED AIR FREIGHT SERVICE**



• Whatever goods your company has to ship, whatever supplies you require—there are advantages in using United's direct, low-priced Air Freight Service to speed your operations. Here are some of the most important ones provided by the giant Cargoliners of the Main Line Airway, linking 60 key cities across the nation.

Speed—quick receipt of needed supplies, merchandise, materials, via Cargoliner helps maintain your production levels.

Economy *United has drastically reduced its Air Freight rates.* With regular shipments by United Air Freight you avoid heavy warehousing charges; reduce extensive inventories; lower handling costs; and by lightweight packaging save much dead weight cost.

Good Will—customers appreciate the fast and dependable receipt of your goods which United Air Freight provides.

New Markets—using the time-saving coast-to-coast Main Line Airway, you can serve in a matter of hours markets heretofore out of reach because of time distance.

Convenient pick-up and delivery in most major cities, frequent, regular flights and special charter flights are further features of this modern-way-to-ship.

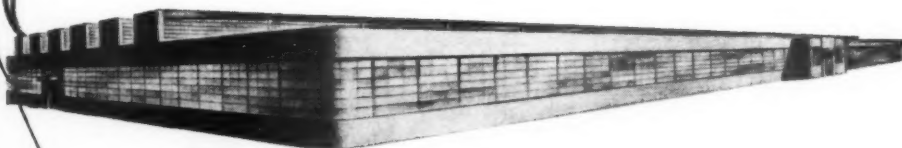
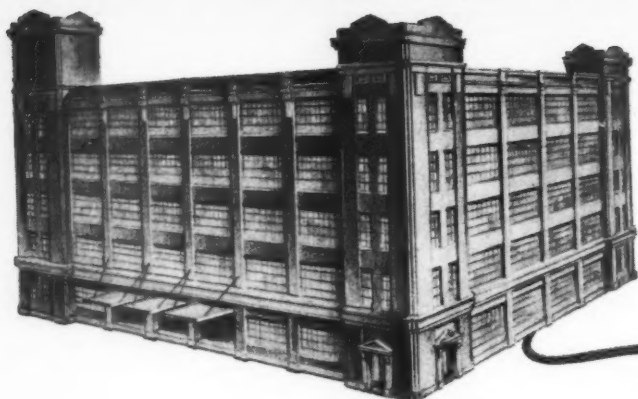


Ask our representatives about how United Air Freight can benefit your business. Or write Air Cargo Division, United Air Lines, 231 So. La Salle Street, Chicago 4, Illinois.

UNITED
PASSENGERS



AIR LINES
MAIL • EXPRESS • FREIGHT



WHY DOES "B" COST MORE THAN "A"?

THE buildings above have two things in common. Both are factories. Both contain the same square footage. But there the similarity ceases.

Building "B"—illustrating preferred construction in 1946—would cost substantially more to build than factory "A" of 1926 vintage. *Why?*

The obvious answer is to blame higher labor and material costs—but this is not the whole story.

Factory building a generation ago did

not involve air conditioning, fluorescent lighting, special types of glass, insulation, acoustical treatments, improved office partitions, modern toilet and rest room facilities, cafeterias, parking and recreation areas and many other improvements.

These make up a large share of the higher cost of a modern industrial plant.

Industrial executives who have experienced the improved operating efficiency, better personnel relations and lower production costs of a modern factory agree

that even at today's prices it is sound to undertake needed construction.

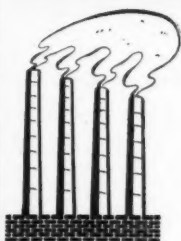
In urging advanced design, many architects and engineers consult with Turner from the start. They recognize that somewhere between inspiration and realization the cost factor becomes vitally important.

They realize that building economy best results from a combination of careful designing, accurate initial estimating and sound management during construction.

TURNER CONSTRUCTION COMPANY

FOUNDED 1903

B O S T O N • N E W Y O R K • P H I L A D E L P H I A



BUSINESS WEEK REPORTS TO EXECUTIVES ON—

BUSINESS AND PRICES: THE NEXT NINE MONTHS



The final decision on OPA marked a milestone for business. For five years price control has been a factor in all business decisions, and uncertainty as to its future has in recent months clouded all economic forecasts. The uncertainty has now passed. Everyone takes it for granted that prices will rise. The vital questions have become: How great will be the advance? How long will it last?

One popular answer pictures prices advancing modestly over the next several months, only to be met and pushed back by an unrelenting flow of goods. Unfortunately, the stubborn facts strongly suggest that such a course is improbable. The rise in prices now under way is the result of: (1) an upsurge of costs based on higher wage rates; (2) a volume of money-backed demand that persistently exceeds available supplies over a wide range of the American economy. Even under the drag of OPA, these factors are capable of raising the cost of living somewhere in the neighborhood of 7% during the second half of 1946.

This in itself is not overly serious. The danger in the process lies in the tendency for it to be repeated. Unionized labor can put strong bargaining power behind a drive to follow cost-of-living increases by still higher hourly wage rates. And higher wage-costs would start many prices moving again in 1947. Moreover, a careful review of the factors underlying the present high demand points to an inflationary pressure persisting at least well into 1947. For the increased production will be concentrated largely in durable goods. Output of many nondurables and services cannot be expected to advance to a similar degree. And, in a relatively free market, the prices put on these limited supplies will still feel the strong pull of the consumer's heavy purchasing power, swelled by savings and credit.

Any conclusions concerning the behavior of prices within a setting so dynamic must, of course, be tentative. Nevertheless, some conclusions are necessary if decisions are to be made. So Business Week sets forth herein certain facts of the present and offers an interpretation of them against a background of the past—all in the hope of arming management for better decisions on the future.



BUSINESS AND PRICES:

THE NEXT NINE MONTHS

Let's begin with a conclusion: that under OPA as now set up it is possible for the consumers' cost of living to advance around 7% during the second half of 1946 and for the average of industrial prices to rise 10%.

Many consumer living costs will, of course, climb higher than 7%; butter and work clothing are examples. Others will move up at a slower pace—rents, for instance. A few will even decline; household electricity is a probability here.

Among industrial prices, each item that business buys will reflect its own unique circumstances. Leather and many housing materials will seek a level higher than 10%; steel and automobiles probably will be permitted a smaller rise.

There appears to be no doubt but that OPA, even in its weakened form, will slow the advance. For if the consumer were permitted free rein to dispose of his record income, and if he behaved today as he has in the past, the cost of living would be likely to jump 12% to 15% above the level of July 1 by the year-end, or about double what now seems indicated under OPA.

And OPA will still hold down many of the prices which businessmen have to pay. For if producers of the goods business buys could bring prices into line with costs on the traditional basis, the average of industrial prices might stand 20% higher by the start of 1947—twice the upward movement that is considered most probable.

In broad terms, here's the basis for this price movement that's already well under way:

(1) Production costs feel the sharp impetus of an advance in wage rates of about 60% since early 1941.

(2) Both consumers and business have record sums to spend on goods that are available, and both are willing to spend more than the goods cost to produce, drawing upon savings and credit as necessary to make up the extra margin.

An understanding of the significance of each of these developments is essential to a correct appraisal of the future—even at the cost of digging into tough details.

COSTS AND PRICES

Prices of many manufactured goods normally have a tendency to stay fixed, even under the impact of great demand. Yet today the prices of a long line of such goods are on the move upward.

This move represents an adjustment of prices to increased labor costs (either direct or embodied in higher material prices). For many years prior to the war the average of industrial prices bore an almost constant statistical relationship to unit labor costs, whether production went up or down (chart, page 47). But since January, 1941, labor costs have climbed almost 60%, while industrial prices have crawled upward only 25%.

This spread between costs and prices cannot be jus-

tified by increased productivity. Plant managers the country over have ample evidence to the contrary, and their conclusions have been confirmed by the cold eye of the Bureau of Labor Statistics.

Isolated instances of extreme advances in productivity can, indeed, be found. So can cases for cost-cutting and price-braking through three-shift operations and other economies attendant to a record output. But experience of the past few months will not lead an impartial observer to conclude that such advances and such economies can close completely the current gap between costs and prices, particularly at a time when the pressure of demand is the greatest in history.

Over coming months prices will yield fully neither to the persistent tug of demand nor to the push of costs. Both tug and push will come up against a price law still aimed at limiting profits below the admittedly very high level that the inflationary potential could well promise.

This is why the prospective six-months rise in the average of industrial prices is estimated at only about half the 20% that could be expected if such prices were to bear the same relationship to labor costs as they did for the 30 years prior to the war.

Upward Spiral?

The upward push of rising wage costs on prices has a further significance for the businessman. Increased prices mean increased living costs. Increased living costs can mean another advance in his wage rates.

To a considerable extent unions will hammer out their wage policy on the anvil of the cost-of-living index. They won't be able to make an illusion of great increases in productivity serve as a solid intellectual foundation for their early 1947 arguments at the bargaining table.

From this arises the more far-reaching danger in the current upward price revision—that:

(1) A rise in the cost of living will incite another advance in wage rates.

(2) The new wage level will be passed on to consumers in the form of further price increases.

(3) These further increases will again raise the cost of living, thus setting the spiral off on another round.

Whether this is to happen will rest in part on the statesmanship exhibited by the trade unions when they are finally confronted by higher living costs—as they most certainly will be within the next six months. Each businessman can best serve as his own prophet here.

But other factors will act on the price structure and will have a great deal to do with the policy pursued by both labor and management. For the sake of convenience, these factors can be bundled up within two familiar concepts: supply and demand.

Five years of producing for war conditioned the American people to an upward trend of production. So

it is natural to find them accepting increased production as the sovereign remedy for inflation. Congress paid homage to their prescription in the new OPA bill.

CEILING ON SUPPLY

Those embracing production as a cure-all admit the necessity for some price advance. They say that increased costs not balanced by increased efficiency certainly mean higher prices, and that "nature cannot expand milk and beef over night." But these truisms are regarded as exceptions to a happier general rule: U.S. production only needs to get rolling to submerge even the peak demand of today.

This argument deserves the closest examination. For if it rings true, worry over a continuing push on prices can be dismissed. Unfortunately a review of today's facts and a look at the expectations of tomorrow appear to tell a different story. Here it is in outline:

(1) Consumers now want more of almost everything—whether it be food, clothing, automobiles, or housing. Six months from now they will be able to back up this demand with an income even larger than today's.

(2) An increased supply of everything is impossible. There isn't enough available labor to permit it. Even now unemployment has been cut to 2,300,000, and less

than 1,000,000 can be added to the over-all civilian labor force (now totaling 60,000,000 workers).

(3) Work stoppages and the immense effort of re-conversion have retarded output in many lines of manufacture. These barriers are now rapidly falling. While construction will about double, the supply of finished goods fed by industrial production can at most be one-fourth greater in the first six months of 1947 than in the first half of this year. But much of the stride in this direction has already been taken; the advance in total output from the level of today will be much less than one-fourth.

(4) Most of this increased production is in durable goods of the type that either consumers or business will buy with past savings or borrowed money—for example automobiles, homes, and electric appliances for consumers, tools and equipment for business. The production and sale of such items will actually enlarge the total stream of purchasing power.

Taken together these conclusions suggest that increased production cannot be counted on to quench the fires of inflation and may, indeed, for a time add fuel to them.

The Manpower Limit

Manpower is the great wall that sets the outer limit to supply. Since the war's end, the over-all balance sheet of the nation's manpower has undergone a radical shift. Here it is (figures are millions of persons):

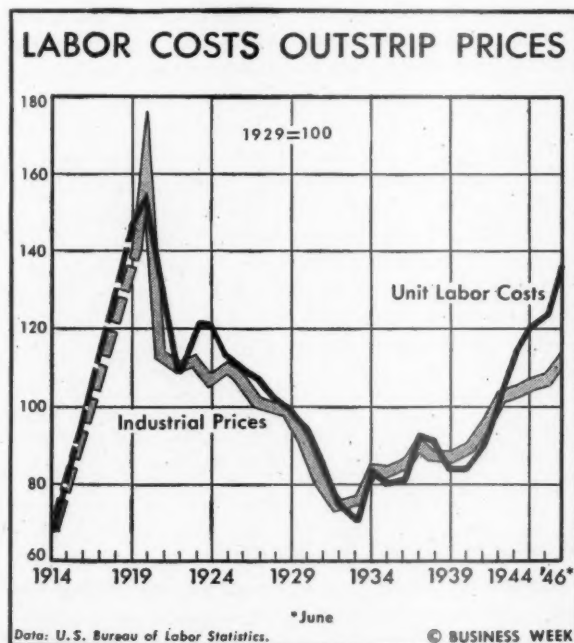
	July, 1945	July, 1946	Change
Total labor force.....	67.5	63.0	-4.5
Armed forces.....	12.3	2.6	-9.7
Civil labor force.....	55.2	60.4	+5.2
Nonfarm employment..	44.4	48.2	+3.8
Agricultural employment	9.8	9.9	+0.1
Unemployment	1.0	2.3	+1.3

In these statistics lies an epic in itself. They reveal a dramatic movement of millions of men and women: an armed force deflated by 9,700,000—mostly absorbed into nonfarm employment; an exodus of war-weary women and children from factory to home and school, dragging the total working force down 4,500,000 from the level of V-J Day.

Over the coming months another half million veterans will be discharged and a half million now vacationing will go into jobs. Unemployment might be cut about one-half million, but not much more, since one must figure that around two million workers are normally shifting between jobs or looking for new ones during periods of high employment. Further retirements of the very young and the old will remove one-third of the one and one-half million possible recruits left. Therefore the net gain in the over-all labor force is expected to be less than 2%.

A vast and general increase in the supply of goods and services is clearly impossible. Nevertheless, output in many lines that have been short in recent months will move upward.

Some of the broad detail of these changes is shown



Industrial prices and labor cost per unit of output rarely have been out of line with one another. Usually labor has received higher wages because of increased productivity; so unit labor costs and prices have remained unchanged. But when higher wages have not been matched by rising productivity, costs and prices have gone up. OPA has retarded this adjustment in recent years. For labor costs per unit of output have climbed 60% since 1941, prices only 25%. Now these higher costs are pushing hard against many prices, and the latter must give way.

in the chart on the opposite page. But two general developments deserve special emphasis: Most of the added output over coming months will consist of durable goods; supplies of foodstuffs and clothing, two of the nondurable goods that consumers want most, cannot be increased much, and in certain cases not at all.

This combination of circumstances will, in itself, tend to keep a strong "lift" under the cost of living. For, as previously noted, the sale of durables brings savings out of hoards and creates new money in the form of bank credit. And much of this added purchasing power finds its way into the pockets of consumers who produce the goods, adding to their ability and determination to bid up prices at short-stocked grocery and clothing stores.

OUTLOOK FOR DEMAND

Nowhere in the new OPA act does Congress imply any expectation that demand might move downward to eliminate the possibility of a second round of price advances. The legislature took the optimistic view—supply, the lower end of the shears, is to move up to cut the inflationary peril.

The judgment already expressed that in early 1947 consumers will probably have a larger income to spend than they have had in recent months is in many respects the most difficult one confronted in this report. Certainly it holds the greatest possibility of error. For the buyer plays the tune, and the supplier does the dancing. If buyers choose to strike, if they decide to hide away more income, if their needs in some lines become saturated—any one of these or a hundred other "ifs" can condition demand and prices.

Nevertheless, some judgment concerning the future strength of demand is of the utmost importance. For the failure of over-all demand to sustain itself has in times past been the principal failure in our search for prosperity and security. Thus business must now closely examine the main elements that may be expected to influence the volume of demand in the months ahead.

Three streams are feeding the great river of purchasing power that so far has managed to engulf all supplies reaching the market:

(1) Income in the form of wages, rents, and profits that is realized in the course of producing and selling current output.

(2) Savings piled up over past years by both consumers and business.

(3) New loans created by banks and others for business, government, or consumers.

The best measure of how these streams in combination affect the output of the country as a whole is afforded by what economists like to call the "Gross National Product." Defined most simply, this is the value of all goods and services (in current prices) produced in a stated period of time.

Since the war ended there has been a big change in the relative importance of the three main sources of spending for goods and services—one that is highly significant

to a clear understanding of the present and future strength of demand. The following table tells the story (figures are in billions of dollars per year).

	1st Half 1945	1st Half 1946	Net Change
Total expenditures	\$206	\$183	—\$23
Government expenditures ..	98	40	—58
Business and other investment expenditures	5	22	+17
Consumer expenditures	103	121	+18

These statistics hold the reasons why the American economy did not suffer the great letdown that many government economists predicted at V-J Day. It is true that the country has been producing less than it did in wartime, but, as previously demonstrated, this is due, in no small part, to the withdrawal of so many women and young people from the labor market. Of much greater significance is the fact that the economy has been able to absorb in its stride a tremendous cut in government expenditures. And this has been possible only because both business and consumers have expanded their purchases by very large amounts.

Today the gross product on an annual basis (the "Total Expenditures" line in the table) is somewhat higher than in the first six months, but not much.

The question of how it will stand during the first six months of 1947 involves an assessment of the whole panorama of the economic forces that make up the outlook for both business and the consumer. Some parts of the answer seem obvious; others are obscure.

The total expenditures by federal, state, and local governments over the coming year is not scheduled to fall very sharply below the \$40 billion annual rate of the first six months of 1946. Federal spending will, of course, feel the next round in the shakedown of the military establishment. However, expanding state and local expenditures will, in part, offset any cut by Washington. A conservative estimate of the over-all share of government output in the gross product during the first half of 1947 places the total at \$35 billion, a decline of \$5 billion from the January-July, 1946, volume.* Thus government spending, even in the second year of peace, will continue to be one of the most powerful levers of our total demand.

Investment Powers the Boom

Business spending has a reputation for taking big jumps and then tobogganing. It certainly leaped after V-J Day, notwithstanding a shortage of many essential supplies. What about the future?

The most illuminating answer is one in terms of the general investment outlook. Business investment can be split into outlays on plant and equipment and the net increase in inventories. With these may be coupled

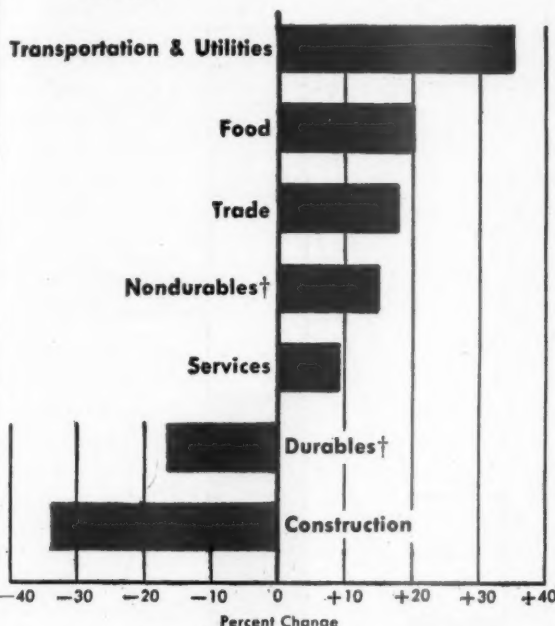
*This \$35 billion total includes only payments for goods or services (including the service of government) furnished by the government. Payment of a bonus to veterans simply transfers money from one of the nation's pockets to another, and is not counted as part of the gross product. Moreover, foreign loans show up under exports and are not listed here as a current government expenditure.

SCORECARD ON PRODUCTION

1st half 1946 vs. 1941, monthly average

Decrease

Increase



†Manufactures

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In many respects Americans are living better today than ever before. More food, more liquor, more amusements have been consumed than in 1941. And this is true for a long line of other nondurable items—cigarettes, ladies suits, plastic products are examples. Those nondurables whose output has lagged—soap and shirts are all too familiar—have been the exceptions and not the rule. Americans also have been more mobile. And they have spent more on their health. Only in one general line—durable goods—have they felt the touch of relative scarcity. Consumers possess the means and the desire to purchase a record number of homes, automobiles, and household items; while business seeks to expand and improve its facilities. But durable goods producers, including construction contractors, have faced the toughest reconversion problem and felt most heavily the impact of work stoppages. Now they are hitting their stride and will ring up a spectacular advance over coming months. But manpower is not available for a similar advance on all production fronts.

expenditures on residential construction, for although not all such expenditures are made by business, the total represents an investment in a long-term durable asset. And finally, the amount by which the purchases of foreign countries from the U.S. exceeds our buying from them (the export surplus) may be included among investment expenditures. For in supplying other nations more than they supply us, this country has invested abroad.

A totaling of these types of investment looks like this (figures are in billions of dollars and represent expenditures on an annual basis)

	1st Half 1945	1st Half 1946	Net Increase
Plant and equipment.....	\$7.3	\$12.8	\$5.5
Household construction.....	0.4	2.7	2.3
Net change in inventories....	-1.6	3.4	5.0
Surplus of exports over imports	-0.9	3.1	4.0
Total	5.2	22.0	16.8

The figures show that the rise in business spending on plant, equipment, and enlarged inventories has contributed greatly to the heavy demand of recent months. Expenditure on household construction, which only now is hitting its stride, has been comparatively modest. But the large surplus of U. S. exports over imports also has served to increase the over-all demand for our goods.

In at least two of these categories—residential construction and the export surplus—the record of recent months clearly will be surpassed. Powered by the Wyatt program (which is designed to assure the necessary materials for housing) and by an accumulated shortage of more than three million homes, expenditure on residential construction may reach a rate next year that exceeds \$6 billion annually. (The rate for the January-June, 1946, period was \$2,700,000,000.)

In the foreign trade field the U.S. has already assured itself that 1947 will be a banner year. Export-Import Bank loans and the British credit provide part of the base for this assurance; the record stores of gold and dollar exchange held by the American Republics and war neutrals provide another part. With more durables being turned out, the export surplus may advance next year to an annual rate of about \$5 billion (a gain of \$1 billion).

It is not possible to speak with the same complete confidence about the future of business spending on plant, equipment, and inventories. At the moment every indication points to a gross investment in these lines that will be larger than that of recent months. But decisions on some of these expenditures can be altered on fairly short notice to suit changed expectations.

Business spending on inventories is particularly tricky in this respect. The heavy over-all demand in recent months has reflected an inventory growth at a fast pace. At some time this growth must cease and expenditures fall off to a replacement rate. In the boom periods of 1920 and 1937 it was such a slack-off in business spending on inventories that turned the over-all curve of demand downward.

At this moment the inventory picture bears little resemblance to that in 1920 or 1937. Then heavy forward buying in anticipation of rising prices had led to speculative hoarding of inventories. Now ever since V-J Day, inventory controls, the high level of demand, and various supply shortages have held inventory speculation in check, even though rising prices have provided the same motive for speculation.

As a matter of fact, if one had said on V-J Day that

total stocks should bear the same relation to total sales as they did in prewar periods of prosperity, he could have argued that business needed to spend \$8 billion or \$9 billion on filling its shelves and stockrooms. So far it has spent less than quarter of this sum. Here is some evidence (admittedly inexact) that spending on inventories may continue to be sizable for some time.

Notwithstanding this comfortable outlook, it will pay any business analyst to keep an eye on the over-all inventory picture. The danger is that forward buying may degenerate into a scramble for scarce supplies. Such a scramble would aggravate inflationary pressure while it lasted. And once the scrambling stopped, demand would suddenly move downward.

More Plant and Equipment

Business spending on plant and equipment is not so great as it first appears. Once allowance is made for today's higher prices, the annual rate of \$13 billion turns out to be little more than a third larger than the average for the not-too-prosperous years 1937-1940.

Here again supply shortages have held the total below what business would like it to be. In the role of guardian of scarce supplies for housing, CPA from January to July, 1946, refused to permit business to spend about \$900 million on expansion of facilities. But building materials and equipment are two supply lines that are growing. Housing demand on these lines will be much larger in the first half of 1947. But from the supply point of view, business should be able to spend more on both plant and equipment over the next year.

Moreover, a business demand adequate to absorb increased supplies seems in the cards. Although the war left a heritage of many new plant structures and a great pool of machine tools, it also bequeathed to business a long list of accumulated needs. Private investment in plant and equipment during the four war years averaged only about half that in 1937-40. When queried a year ago by the Dept. of Commerce about what they wished to lay out on new facilities in 1946, manufacturers said they "planned" to spend 65% more than in 1941; railroads about 40% more; and the electrical utilities somewhat less. Neither manufacturers nor the rails have yet realized such an investment rate.

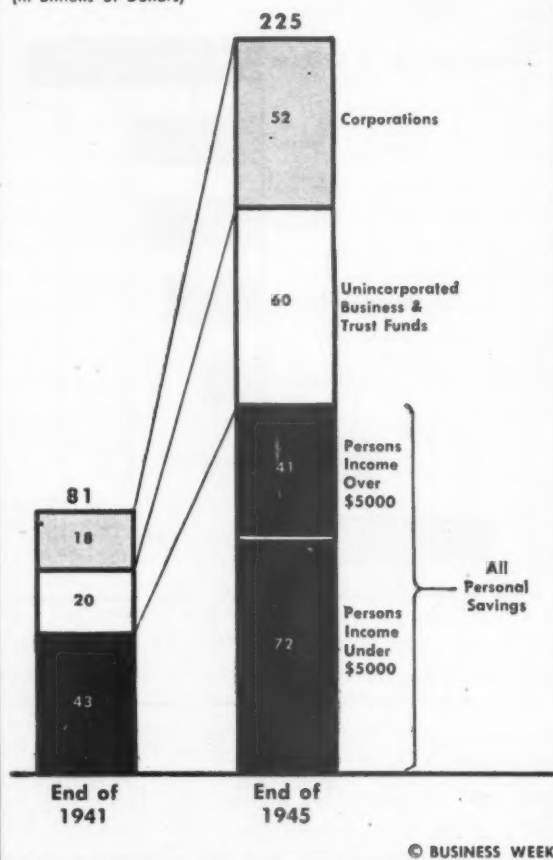
Many nonmanufacturing lines—notably hotel groups, chain and department stores, telephone systems, airlines, truck and bus lines, and oil producers—have announced ambitious plans for modernization and expansion. While not all such expansion plans will come to fruition, a surprising proportion appears to be firm. So, unless radical changes occur that are not obvious at the moment, the total business outlay on plant and equipment should be higher in the first half of 1947 than it was in the January-July, 1946 period.

To sum up the outlook for investment spending for first half of 1947 as contrasted with recent months:

- (1) Residential construction and the excess of exports over imports will almost certainly be expanded;
- (2) Business outlays on plant and equipment will

THE WAR TREBLED SAVINGS

(in Billions of Dollars)



The war revolutionized the cash position of consumers and business. Liquid assets now total \$225 billion. Corporations hold \$52 billion, largely the result of accumulating \$25 billion in depreciation reserves and holding back \$18 billion in undistributed profits during the war. Individuals own the rest—\$113 billion personal funds and \$60 billion in unincorporated business and trust fund accounts. Though many individuals will hold on to savings, their incentive to sock away current income has weakened. Even without durable goods to spend on, they recently have saved at a lower rate than prewar.

be in greater volume unless an unexpected and radical shift in the business outlook causes a shift in plans;

(3) Inventory accumulation should continue, but at an unpredictable rate.

And all this adds up to a likely expansion of expenditure by business and other investors for all the items they now are purchasing.

Consumer Spree

No one has done more than the consumer to incite both the pleasure of prosperity and the potential pain of inflation. The consumer's willingness to open his

pocketbook after V-J Day went a long way toward eliminating the tremendous decline in government spending as a formidable problem for business and government, let alone for himself. And this same willingness is today exerting a tremendous push on the prices of almost everything the consumer is interested in.

What the consumer will be doing six months hence can be better judged if his recent and current spending is examined in some detail. Here is his expenditure pattern (figures on annual basis in billions of dollars).

Consumer Expenditures	1st Half 1945	1st Half 1946	Net Change
Total	\$103	\$121	+\$18
Nondurable goods.....	63	76	+13
Food	37	44.5	+7.5
Clothing	14	17.5	+3.5
Other	11	14	+3
Durable goods	7	11	+4
Services	33	34	+1

These statistics demonstrate that, for the most part, the consumer has taken out his higher living in an increased expenditure on food and clothing. But it must be borne in mind that many of the items he most desires—automobiles, household appliances, new homes, and other durable goods—have not yet been available in large quantities.

While no one can say exactly how the consumer might be spending next year if his income remains as high or goes higher, certain generalizations appear obvious, such as the certainty that he will buy many more durables. But what about the biggest slice of his spending—the one that goes for food and clothing?

The answer to that question must start from an examination of how the consumer used to allocate his smaller prewar income, among the various groups that sought his favor. Comparisons reveal that he is now spending perhaps one-sixth more on nondurables than past history would lead one to anticipate.

But it would be misleading to jump to conclusions on the basis of this evidence, without first examining in greater detail the nature of his food and clothing purchases in recent months. The heavy buying of consumers has not yielded them a great increase in basic food-stuffs or everyday clothing. Supplies have not permitted this. As a substitute, consumers have diverted their cash to a variety of luxury lines—restaurants, night clubs, sports clothing, cosmetics.

Once price controls are finally removed from food-stuffs and clothing, some of this straying cash will go after the everyday necessities of life—groceries, meats, suits, and shoes. So the push on prices in many of these lines is likely to be maintained—at the expense of luxuries, if necessary.

At the same time, consumer expenditure on durable goods will move upward to meet the growing supply. The spending rate on such goods may rise to as much as \$20 billion annually, as contrasted with the \$11 billion rate of the first half of 1946. And a considerable proportion of the increase will come from savings or newly borrowed funds.

Consumers also are expected to seek more in the way of services. But here they will be thwarted, for the shortage of manpower will limit severely any possible increase. Prices in this area will probably be subjected to further hiking.

When the pieces of this puzzle are put together, they reveal that consumer expenditures in the first half of 1947 should surpass even the huge volume of first half 1946. Moreover, much of the increased spending on durable goods will come from savings and credit; so the demand for food, clothing, and services will not suffer but is likely to be even larger than it has been. And since the supply of many of these items can be increased but little, if at all, the upward drive on their prices will continue. Hardly a comfortable outlook for the cost of living!

Since the gross national product measures the whole of economic change, estimates of its future size should never be locked away. For the amending hand of the unforeseen almost always writes an additional chapter.

With this qualification in mind, it can be estimated from the base already laid down that the gross national product in terms of June 30 prices may well reach an annual rate of \$200 billion during first half 1947 (the average for January-June this year was \$183 billion). With government spending scheduled to decline about \$5 billion (to a \$35 billion rate), the rate of consumer and business spending may be expected to rise about \$22 billion. And the principal part of this added outlay will go for construction and those durable goods that thus far have been produced in such small quantities.

Savings and Credit

The consumer of six months hence is not likely to find his income cut because he is out of a job. That is one of the broad and important conclusions to be derived from our review of the gross national product.

However, full employment in itself need not make for immense inflationary pressure. If business and consumers merely spend what they earn, they engage in the time-honored practice of taking in each other's washing.

But as has been already emphasized, both business and consumers are supplementing current income with past savings and new loans. This enables them to pay more for scarce supplies than those supplies cost to produce—thereby driving up prices. And first half of 1947 is not likely to bring any slackening in the flow of these auxiliary streams of purchasing power. With residential construction, consumer durables, and plant equipment flowing in greater volume, they are more likely to dig deeper into savings and borrowing power.

The chart on the opposite page tells the dramatic story of U.S. savings. It can be summed up by saying that the liquid assets of both business and consumers now total \$225 billion, with each holding about half.

It is often objected that most of these savings are not ticketed for current expenditure but were pocketed only for emergency use. Even though this be true for a considerable part of the total, these savings still exer-

cise a profound influence on the spending habits of those who are fortunate enough to have them.

Credit is another of the principal tools that government, business, and consumers are using to pull prices higher. Borrowing makes it possible to have your cake and eat it, too—at least for awhile. And if credit takes the form of added bank deposits, a new inflationary tool has been fashioned.

During the war government borrowing submerged all other credit needs. Now the government is moving toward a balanced budget, and it may achieve an excess of income over expenditure during the first half of 1947.

Business, on the other hand, is calling upon the banks for help in building its inventories and enlarging its plant and equipment. Bank loans to business stand more than \$2 billion above the level of a year ago. There is no reason to believe that this trend will be arrested over coming months.

Consumers, likewise, are returning to the banks and credit houses that they passed by during the war. Over recent months consumer credit has been leaping upward at an annual rate approximating \$3 billion, even though household furnishings, electrical appliances, and most other goods for which people want credit have been in very short supply.

In the absence of more stringent government restriction, the rise in output of durables could double the pace at which consumer credit has been growing.

SUMMING UP THE OUTLOOK

In the final analysis every businessman must rely on his own judgment about so uncertain a matter as the outlook for prices, production, and demand. For the future will be the end product of millions of individual decisions, and under the circumstances the possibility of error is great. Yet the individual business must attempt to anticipate the fortunes of business as a whole. For seldom does the whole fail to affect the individual, and often the effect is decisive.

This report has surveyed past trends and future prospects for U.S. business in its entirety. The broad conclusions have rested on an analysis that included considerable detail, much of it statistical, all of it essential to the formulation of independent judgments.

To assist in the process of distinguishing the forest from the trees, here are the general conclusions that Business Week believes can be supported by the evidence:

(1) The great advance in wage rates has so increased business costs that some rise in the price of many commodities is essential. In other lines (notably foodstuffs and services) the pressure of demand is so heavy that prices already have yielded, either openly or covertly. Even under the new OPA, the combination of these circumstances is expected to move up the cost of living in the neighborhood of 7% during the second half of this year. Decisions of the Price Decontrol Board will, of course, influence greatly the magnitude of the advance.

(2) Both consumers and business should possess suf-

ficient buying power to continue the push on prices in many lines after December, 1946. This conclusion rests on the judgment that:

- (a) The over-all national product of the U.S. in first half of 1947 appears likely to be greater than that in first half of 1946.
- (b) Government spending is scheduled to fall below the volume of recent months, but the decline will not be extensive. With a scheduled rate of expenditure for January-June, 1947, in the neighborhood of \$35 billion annually (total for federal, state, and local units), government still will be of immense significance in sustaining over-all demand.
- (c) Spending that represents investment may well exceed the rate of past months. Outlay on residential housing is certain to be larger, and the amount by which exports exceed imports is expected to increase. Business investment in new equipment and plant should be sufficient to command the larger supply of many equipment items that the country is capable of turning out. But although inventory stocks may continue to be built up, one should not rule out the possibility that the net increase will be smaller next year than this.
- (d) Consumer spending is expected to be more than sufficient to encourage all-out production. Although durable goods will flow in greater volume, lack of manpower will check any huge increase in the supply of many services and nondurables.

In light of all this it is clear that coming months will probably not dissipate the danger of a price-cost spiral in which wage rates chase dizzily after the cost of living.

Any program of public action directed to lessening this danger must hit at the roots: the large amount of new purchasing power generated by government spending and the ease with which past savings or newly borrowed funds may be employed. Business Week already has set forth specifications for such a program (BW—Jul.20'46,p90).

The goal of any action is to prolong the present period of high employment. But a continuing price advance can block the United States from such a goal. For rising prices can only encourage an ill-conceived over-expansion in many lines, and this inevitably will hasten and aggravate the day when consumer and business demand can be expected to slacken.

REPRINTS AVAILABLE

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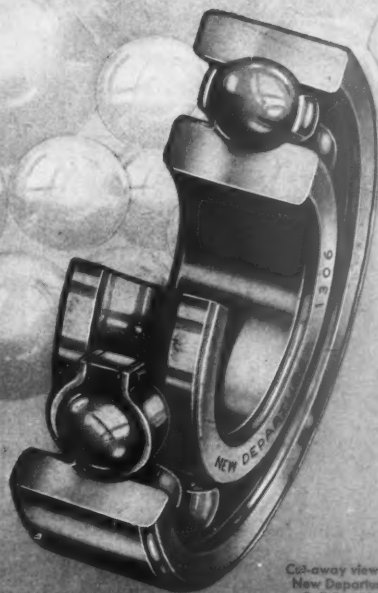
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MARKETING

Candy Seeks Wider Markets

Though industry's present output is restricted by shortages of ingredients, what it really fears is that war-expanded capacity to produce will eventually bring about cut-throat competition.

In spite of sugar, chocolate, and labor shortages, the candy business saw its biggest volume during the war years.

Manufacturers' peak sales in 1944 of \$658 million (one-quarter of these to the armed forces) pushed candy consumption to a record high of 20.5 lb. per capita. Last year sales shrank only \$38 million from this peak, consumption to 18.7 lb. per capita, although both sugar rations and government purchases were sharply curtailed.

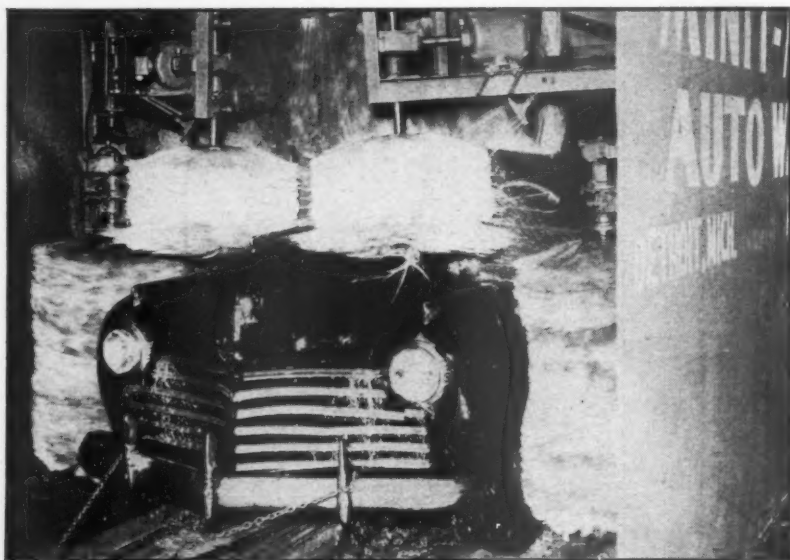
Use of scarce materials in higher-priced, better-profit lines pushed average prices 1½¢ per pound higher, but though sales in 1945 were 242,000,000 lb. below the 1944 high of 2,804,000,000 lb., they were a million pounds above 1943.

• **Present Outlook**—Continued shortages of ingredients will pinch candy out-

put this year and next. But candy manufacturers are more alarmed about the prospect of a future oversupply than about current shortages. They fear that productive capacity added by the industry during the war eventually must bring cut-throat competition.

Best guess is that, by using production shortcuts devised to meet wartime demand, the industry can turn out twice as much candy as it did before the war with the same plants. Machine operations, simplified processing techniques, and new ingredients that speed up cooking, drying, and setting account for the enlarged capacity. As new machinery becomes available, still more mechanization is in prospect.

• **As They See It**—Manufacturers see expanded markets as the only means of



SATURDAY NIGHT—IN TWO MINUTES

Paul's Minit-Man Wash, operated by Paul Mariain in downtown Detroit, is a new last word in mechanized auto washing. Cars ride an endless track, while seven big revolving brushes play over car surfaces, a team of two men sponges untouched surfaces, airstreams start the wiping, and two more teams of two men apiece finish up. The entire job takes only two minutes, costs \$1. The idea was developed by Leo Rousseau of Detroit's Commerce Pattern Foundry & Machine Co. Nine more of the car-washers are on order thus far for use in Detroit, Chicago, and on the West Coast.

A CLEAN SWEEP FOR DUREZ PLASTICS

The parallel development of Hoover Vacuum Cleaners and Durez phenolics points up an era in which household appliances and plastics have progressed together...and lightened further the labor of housekeeping.

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Durez Versatile

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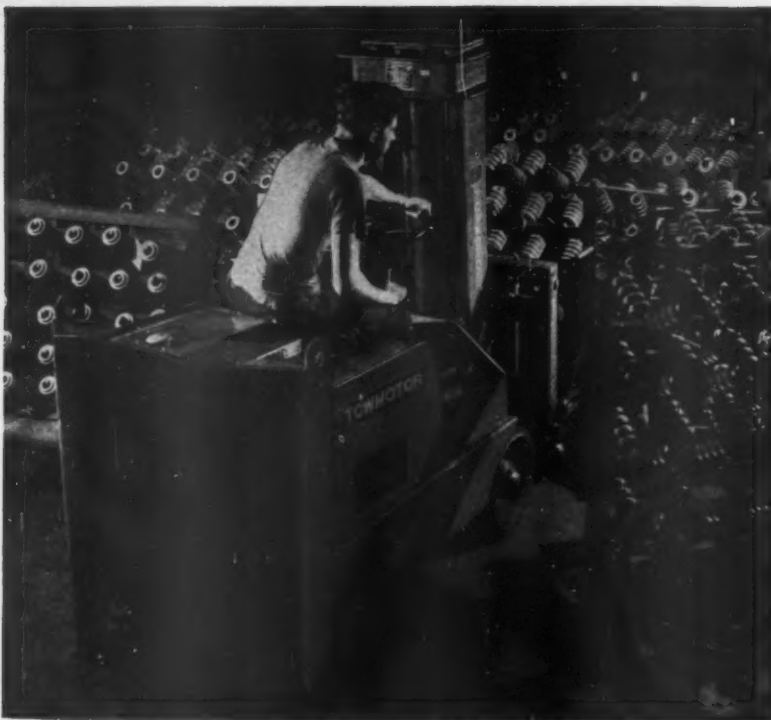
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MILLIONS OF GEARS—gears of many sizes and shapes, for a large variety of uses—are produced by Warner Gear Division, Borg-Warner Corporation. Mass production of this sort entails numerous handling problems, many of which are effectively solved by a fleet of eleven Towmotors.

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lbs. of gears daily, in addition to supplying loads for three interplant trucks. And to Towmotor's record for versatility and capacity can be added economical operation... operating costs for each unit total only $\frac{1}{4}$ of the operator's wage.

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**TAKE IT UP WITH
TOWMOTOR
THE ONE-MAN-GANG**

avoiding a return to the trade's pre-war position as a narrow-margin, low-profit industry producing candy for use as loss leaders on many retail counters.

An added worry is the expectation of sharper competition from soft drinks, liquor, and ice cream, which were outstripping candy in sales gains before the war.

No miraculous new candies, filled with minerals and vitamins, are cooking in the vats to help America eat its way back to health. It will be a more complex chore than that to get Americans to eat more sweets. Few of the big makers of candy bars have gone in for vitamin bars.

• **Research Program**—The industry, however, is keeping a sharp eye on the progress of the candy research sponsored by the National Confectioners' Assn. at the Dept. of Agriculture's Southern Regional Laboratory, in New Orleans. There scientists and candy experts are experimenting with such agricultural byproducts as soybean proteins and peanut proteins. Their objective: to achieve a palatable, high-quality candy while increasing its content of natural vitamins and proteins and reducing its sugar.

Because 48% of all candy is sold through jobbers, the industry is pushing a sales training and dealer-aid program for jobber salesmen. It hopes thus to avoid a return to the price-deal selling which afflicted them before the war.

• **Advertising Drive**—To back up the jobber training program, an aggressive advertising program has been designed to dispel consumer notions that candy is fattening, causes dental cavities, and is not a good food. Candy makers are still smarting over Lucky Strike's "Reach for a Lucky instead of a sweet."

Manufacturers believe their biggest new outlets will be the supermarkets and self-service groceries. They expect such outlets to push not bulk candy but prepackaged candy in transparent bags, ready for mass display and requiring no handling.

• **Price Aid Sought**—Bar candy last year accounted for more than half of the candy sold; 90% of civilian sales were 5¢ bars. Bars are expected to maintain their domination of the market. Makers of nickel bars are asking relief from the price squeeze caused by higher costs of ingredients and labor. If OPA grants this, it will bring a smaller bar rather than a 6¢ bar, because a major proportion of bar candy output is sold through vending machines.

Manufacturers are also seeking a price adjustment on penny candies such as gum drops and jelly beans. These have almost disappeared in consequence of the switching of ingredients to better-profit lines. Once totaling 15% of candy sales, the penny candies now amount to only 3%.

A. & P. Experiment

Tests with frozen foods indicate chain may enter this field on large scale. Simple cabinets have visible displays.

For a long time one of the big questions in the frozen food business has been whether the big chains would go into it on a grand scale. Chances are that even some of the chains themselves haven't known the answer. Now the Great Atlantic & Pacific Tea Co. is conducting an experiment that indicates that its entry into frozen foods may not be far off.

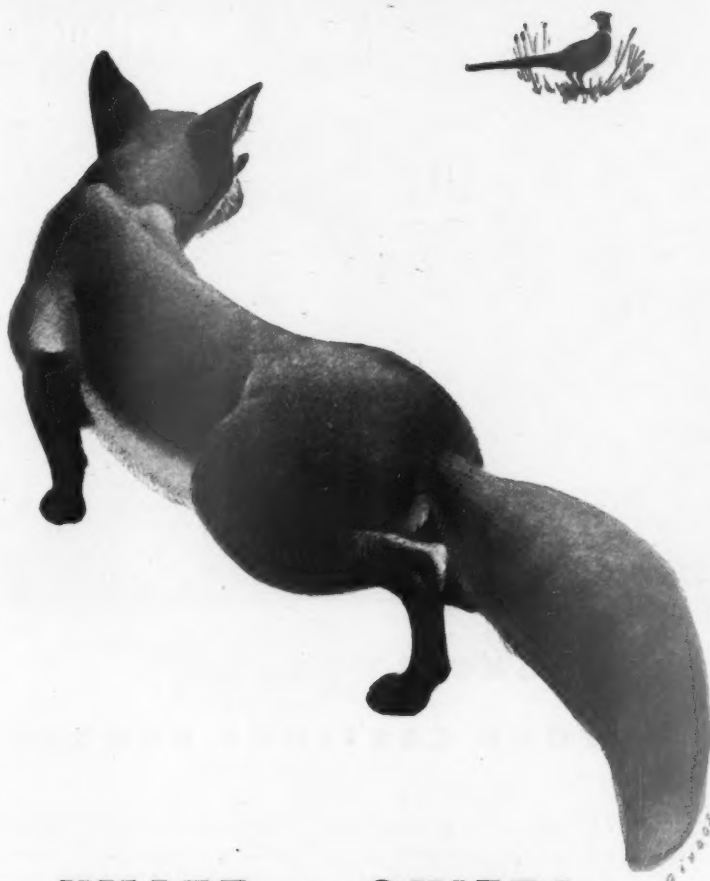
• **Obviously Profitable**—Chains have, of course, sold frozen foods for several years, but only sporadically, according to neighborhood demand or the availability of zero-temperature store cabinets, and the total sales have been small compared with the astronomical figures on canned goods and fresh produce. For the most part chains have been content to follow their traditional policy of letting independent grocers



HE STAYED ON THE JOB

J. C. Penney Co., national chain which recently elected a new president (BW—Apr. 27 '46, p78), will have a new sales manager come Jan. 1. He's 46-year-old Homer Torrey (above), now manager of the chain's Denver store. Torrey, once a dance band musician—violin and saxophone—began with Penney as salesman in a store in Hood River, Ore. He was just 18 then; he's been with the firm ever since.

BUSINESS WEEK • Aug. 24, 1946

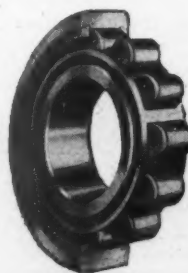


HYATT... QUIET!

Not just a play on words but a rhythmic definition of machinery in motion as the RPM's or the miles click off smoothly—dependably—quietly—on Hyatt Quiet Roller Bearings.

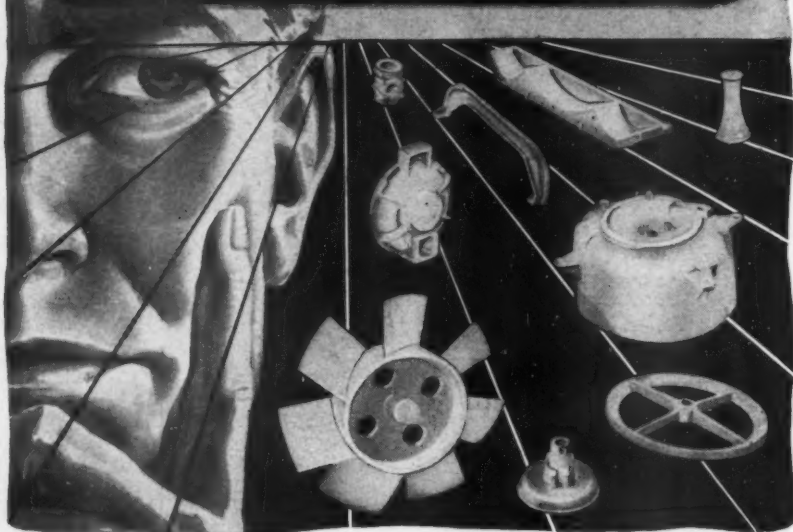
Fifty-four years ago Hyatt made the *first* roller bearings and today, wherever wheels and shafts must turn friction-free and trouble-free, "Hyatt Equipped" is still your assurance that all is well. Hyatt Bearings Division, General Motors Corporation, Harrison, New Jersey.

HYATT



QUIET ROLLER BEARINGS

Can My Product Too, Utilize Aluminum's Advantages?



CONSULT

ACME

ON YOUR CASTINGS PROBLEMS

Light weight, easy machinability, resistance to corrosion, smart appearance—these outstanding advantages of aluminum alloy castings are familiar to all. But the wartime development of new aluminum alloys, which in strength compare favorably with malleable iron, opens up many new applications for aluminum castings throughout today's industry.

Perhaps you can use the many extra advantages of aluminum to speed production or improve the saleability of your present or new products. Why not consult Acme aluminum engineers? Perhaps your casting is already so designed that an aluminum alloy is the best material for it. Or perhaps we can suggest some design or alloy change that will give you an even better casting, with a saving in metal—and in costs.

Today's trend is toward aluminum. Tell us about your product. Get Acme recommendations, based upon long experience with the characteristics of aluminum alloys and the most modern foundry practices.

ACME ALUMINUM ALLOYS, INC.

DAYTON 3, OHIO

Aluminum, Brass, Bronze Castings • Patterns • Tools • Engineering

SALES OFFICES: New York Chicago Cleveland Detroit
Pittsburgh St. Louis Washington Minneapolis Flint Milwaukee Dallas

To Test Prepackaging

While the Great Atlantic & Pacific Tea Co. cautiously experiments with frozen foods (page 57), a field which thus far has been cultivated most assiduously by independent grocers, the independents in turn are experimenting with prepackaged fresh produce, a merchandising idea which heretofore has intrigued mainly the chains (BW—Oct.20'45,p93).

The National Assn. of Retail Grocers and Purdue University have launched a two-year study of prepackaging in Fort Wayne, Ind., to determine whether independent wholesalers and retailers can distribute a full line of packaged fresh produce at prices competitive with unpackaged produce, and derive the benefits of lower costs, plus higher sales. • Cooperating in the project are Bursley & Co., Fort Wayne produce wholesaler, which will prepare and package the produce with automatic machinery, and eleven Fort Wayne retail grocers who will lend their refrigerated produce departments for the experiment. Later on grocers with unrefrigerated produce departments will be included to broaden the test. Purdue University will figure processing and packaging costs and analyze the results of the study for N.A.R.G. members.

or local chains do the experimenting.

That the experimenting has been profitable could hardly have escaped the chains' attention. Frozen foods profited during the war by high consumer incomes, scarcity of canned and fresh foods, and by lower ration point values at first than those on canned foods.

• **Three Chief Reasons**—Some of the reasons why the giant grocery chains made little effort to cash in on this bonanza are obvious:

(1) Both store cabinets, and supplies of frozen foods, were so scarce as to be on a catch-as-catch-can basis; an independent store's operation is flexible enough to profit in spite of this, but a chain with thousands of outlets must be sure of satisfactory equipment and sufficient supplies before it plunges in with a new department.

(2) Chains have been more interested in handling fresh produce on which their profit margin is higher, especially when they have their own commission divisions, like A. & P.'s Atlantic Commission Co. (BW—Apr.6'46, p78).

(3) Frozen foods are rather high priced for the mass market to which the

THEY GAVE THEIR PROBLEM THE

HOT SEAT



5400 per hour WITH TOCCO

TO improve engine performance and cut costs, this manufacturer altered the design of his tappet. A steel push rod seat, brazed to the tappet cylinder, was the basic idea. The problem was to harden the seat without scale, without distortion of the cylinder and without affecting the braze...and to do this *at low cost*.

A TOCCO Induction Heating machine with special fixture solved the problem with these results:

TOCCO electrical induction heats the seat only to a uniform depth. TOCCO's integral quench then cools the area, hardening it to 60 R.C. This quick, localized treatment avoids scaling and distortion, and does not disturb the nearby braze. The quality of the result is attested by millions of these tappets now in service.

And as for *low cost*: Two wheel fixtures keep the tappets turning into the inductor and quench. Operators simply load the wheels. The tappets drop out at the bottom at a *cost-cutting rate of 5400 per hour*.

How about *your* problem? The TOCCO Engineer nearby and the TOCCO Development Laboratory are at your service. Mail the coupon for book of TOCCO ideas.

THE OHIO CRANKSHAFT COMPANY • Cleveland 1, Ohio



TOCCO

--- MAIL COUPON FOR BOOKLET ---

The Ohio Crankshaft Co.

Dept. W, Cleveland 1, Ohio

Send free Copy "Results with TOCCO"

Name.....

Company.....

Address.....

City.....Zone.....State.....

WHAT DO YOU MEAN WASTELAND?

ONCE barren and useless—today, land like this is a new frontier, yielding vast hidden wealth to Industry's constant advance . . .

—*countless carloads* of copper, lead, zinc for building cars, ships, thousands of industrial and home products. . . .

—*rich crops* of grain, fruit, vegetables . . . from fields made fertile by irrigation . . .

—*new reservoirs* of oil for powering transportation and industry . . . heating homes . . .

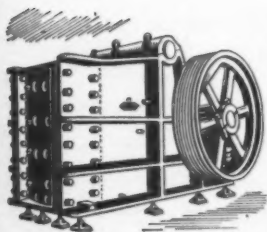
—*wonders* wrought with the help of Allis-Chalmers, working with engineers, miners, farmers, oilmen . . . building machines that help make these miracles possible!

The A-C emblem on a machine—ore crusher, harvester, generator, turbine, motor—means economical, dependable, long-life operation. For millions of Americans, it means more and better products to use and enjoy.

Through 99 years of engineering integrity and painstaking craftsmanship, Allis-Chalmers has enjoyed the confidence and respect of the finest technical and business minds in the world.

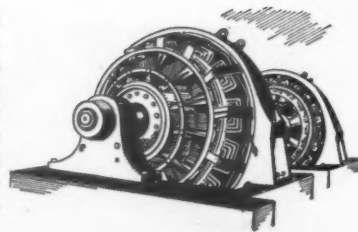
One of the "Big 3" in electric power equipment, Allis-Chalmers is biggest of all in range of industrial products—helping all industry to bring good living to more and more people.

Allis-Chalmers Manufacturing Co., Milwaukee 1, Wis.



● A new all-steel jaw crusher designed by Allis-Chalmers to do a better, cheaper job of rock and ore reduction. One more example of how A-C machinery boosts production . . . lowers costs. Good reason why *every* basic industry relies on Allis-Chalmers to solve tough equipment problems. Consult the A-C office in your city.

● This giant reversing motor built for rolling out steel is typical of the engineering and fine craftsmanship which have made Allis-Chalmers a leader in supplying electric power products. The A-C trademark is your assurance of sound design and construction on equipment for the generation, transmission and control of electric power.





ALLIS **CHALMERS**

**One of the Big 3 in Electric Power Equipment—
Biggest of All in Range of Industrial Products**



Do you operate a high cost steam plant?

DO you buy premium fuels to avoid smoke nuisance? Do you waste coal attempting to follow a variable load with hand firing? Do you have to "push" your boilers to get all the steam you need?

There are many thousands of cases on record where Iron Fireman stokers have cut costs by using low-grade coals while, at the same time, eliminating smoke nuisance; cases where recording gauges show steady steam pressure with widely fluctuating loads; where steam output has been stepped up 50% or more.

Fazel Brothers Co., Perry, Iowa, cut fuel costs, increase production with half as many boilers

Fazel Brothers Co., processors of hybrid seed corn, have compiled the following record after converting from hand firing to Iron Fireman stoker firing: Production up 8½%, steam costs down 29½%, one boiler does work previously done by two. Writes Mr. D. H. Fazel, "When hand firing both boilers we were at times unable to develop sufficient heat to keep our drying machinery at full capacity. With the Iron Fireman stoker, we operated the full season, using

but one boiler at a time, and had more than sufficient steam for all needs."

What about YOUR steam costs?

Is your plant wasting what Iron Fireman users are saving? You can get an accurate and impartial answer, without cost or obligation, by requesting a survey of your boiler plant. Write to Iron Fireman Mfg. Co., 3019 W. 106th St., Cleveland 11, Ohio, builders of stokers, oil burners, self-firing boilers, furnaces for home heating, and commercial and industrial stokers. Plants in Cleveland, Ohio; Portland, Oregon; Toronto, Canada. Engineering, sales and service organization covers the continent.

IRON



FIREMAN

**AUTOMATIC COAL STOKERS
FOR HEATING, PROCESSING OR POWER**

corporate chains have so far keyed their operation.

• **Experiment in the Bronx**—Frozen foods are not completely alien to A. & P., however. It has done a good deal of experimenting with them (but not freezing its own) in its extensive bakery operation. Furthermore, within the past year it has established two brands of frozen fish, Cap'n John and North Pole, in connection with its fresh fish business.

Now its frozen food experiments have reached the merchandising stage: For the past three months an A. & P. supermarket in the Bronx, New York City, has carried a full line, including fresh frozen poultry and meats; frozen cooked meat dishes made by Hygrade Food Products Corp.; Birdseye, Pratt, and other national brands of fruits and vegetables; frozen French fried potatoes made by Maxson Food Systems, Inc. (BW—Feb. 9 '46, p60); and its own brands of frozen fish.

The department consists of four display cases, end-to-end, occupying nearly half of one sidewall of the supermarket, and it has its own checkout desk. The cabinets, most of which were made by C. V. Hill Co., are similar to a few others which have appeared on the market in the past year. They are designed for visibility of product plus easy self-service.

• **Variety of Equipment**—In A. & P.'s equipment the packages are stored in an open-top cabinet with a glass front which (when not obscured by condensed moisture) makes the package visible from the front as well as from the open top. An "apron" overhanging from the back of the cabinet provides a narrow rack for price figures, space for colored pictures of the foods, and bright lighting trained on the interior of the chest.

This fairly simple cabinet is in contrast to some more elaborate equipment that has been tried elsewhere. Independent Grocers Alliance last year announced plans to install a special room, with temperature held to 60 F, for fresh produce and for frozen foods stored in zero temperature cabinets, in each of its 5,000 member stores (BW—Jun. 9 '45, p97). Chicago units of the Jewel Tea Co. and National Tea Co. have experimented with the Frez-O-Mat cabinet, an elaborate vertical display case in which a package of frozen food is tipped into the customer's hand when she opens a little door to a compartment containing the chosen variety (BW—Apr. 6 '46, p84).

• **Testing the Market**—The cabinet problem, however, is obviously only one of many on which A. & P. hopes its Bronx experiment will shed light. Not least of them is whether customers in moderate income neighborhoods such as that one will continue to buy frozen foods after other types become plentiful.

Glove Shortage

Price and supply problems in cotton and leather duplicate conditions which handicapped the industry during war years.

Shortages of work gloves—leather, canvas, and leather-palm types—last year crippled some war industries (BW—May 1945,p90). The shortages are equally tight today.

• **Production Curtailed**—Manufacturers have been hampered by (1) uncertainty over the length of the recent moratorium on the Office of Price Administration, (2) a sharp increase in the price of cotton for making canvas gloves, and (3) the abandonment on June 26 of international leather controls (BW—Aug.10 '46,p26).

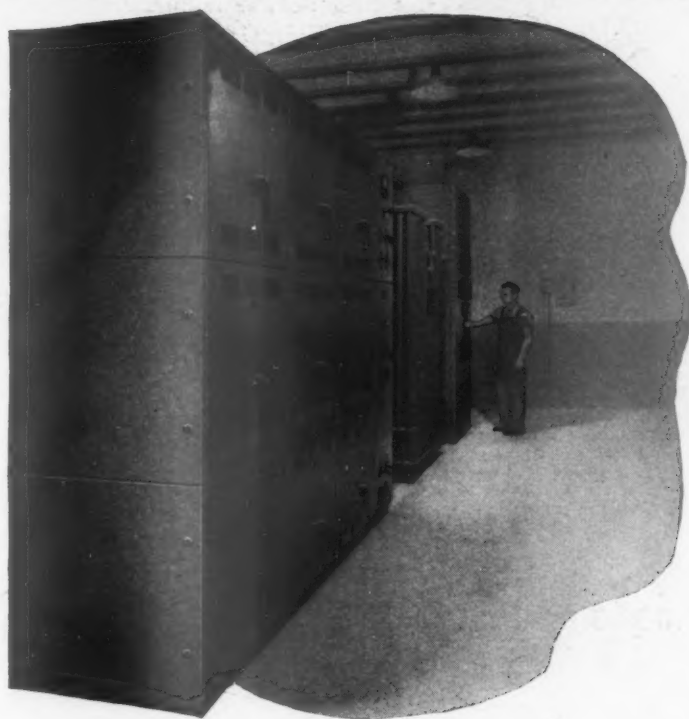
Fearful of being caught with high cost inventories by OPA revival, manufacturers curtailed production. One of the largest makers withheld third-quarter offerings while awaiting an order granting price increases of 1¢ to 6¢ a pair retail. But when the order came through on July 26, it was too late; the company was already busy making



EASE FOR FAN AND FANNY

Baseball fans, long inured to the rigors of the bleachers, may soon rest easy. Col. Larry MacPhail (left), president of the New York Yankees, with Goodyear representatives, surveys a sample seat, cushioned in Goodyear airfoam rubber and plastic, the first of which will be installed in Yankee Stadium's press box this fall. The entire installation will take two years. American Seating Co., Grand Rapids, manufactures the frames.

Wagner Unit Substations



Save Time, Material, Labor, and Space

Wagner unit substations offer many advantages over the old piecemeal transformer and switchgear installations. Among the more important advantages are: (1) ease of ordering, (2) undivided responsibility, (3) simplicity of installation, (4) ease of relocation, (5) less installation expense, (6) simplified maintenance, (7) shorter low-voltage feeders, (8) less manpower needed to make changes, (9) greater safety to workmen, (10) less floor space required, (11) greatly improved appearance, (12) built to well-known stand-

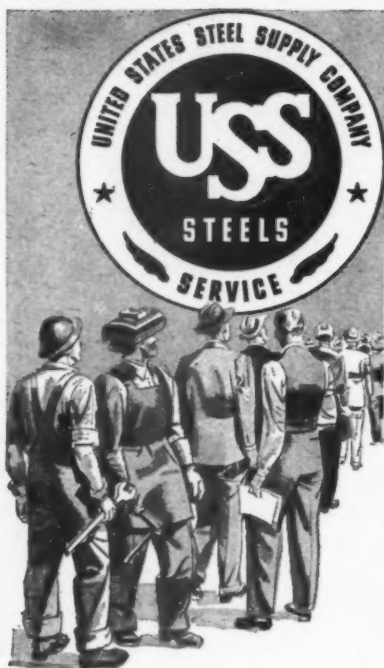
ards of Wagner dependability.

One order to Wagner brings everything needed to meet your exact transformer and switchgear needs—a complete unit substation engineered as a single unit, fully backed with undivided responsibility by Wagner.

Get complete information on Wagner unit substations and other Wagner distribution and power transformers—described in bulletins TU-180 and TU-181. Address your request to Wagner Electric Corporation, 6460 Plymouth Avenue, St. Louis 14, Mo.

Wagner WE Electric
ELECTRICAL AND AUTOMOTIVE PRODUCTS

TAB-17



When you need steel—
remember this

Symbol of Service

WHEN you need steel, or have a problem of steel selection or application, our nine conveniently located warehouses are ready to serve you. At these points we make every effort to carry adequate, well-balanced stocks to meet your needs. No order is too small or too large—no inquiry is too much trouble—to be handled promptly, accurately and cheerfully.

Whatever your steel requirements may be—Hot Rolled or Cold Finished Bars, Structural Shapes, Plates, Sheets, Alloy Steel, Stainless Steel, Tools, Machinery etc.—you'll get the best possible service by contacting our nearest warehouse. Phone, write or wire for quick, courteous attention.

LISTEN TO . . . the "Hour of Mystery" presented by United States Steel on the radio every Sunday evening. Consult your local newspaper for time and station.

United States Steel Supply Company

CHICAGO (90)	BRUNswick 2000
BAITMORE (3)	Gilmer 3100
BOSTON (Allston 34)	STAdium 9400
CLEVELAND (14)	HEnderson 5750
MILWAUKEE (1)	MitcheLL 7500
NEWARK (1), N. J.	Bigelow 3-5920
	REctor 2-6560, BErgen 3-1614
PITTSBURGH (12)	CEdar 7780
ST. LOUIS (3)	MAIn 5235
TWIN CITY, St. Paul (4)	NEstor 7311

UNITED STATES STEEL

its Canton flannel into other products.

During OPA's hiatus, makers quoted prices only on gloves they could make of materials in inventory. A typical instance is an order placed by Chrysler for 3,000 doz. pairs of leather gloves.

The manufacturer would supply only 780 doz. at going prices.

• **Leather Supply Eased**—He explained his action was caused by the prices of hides. Cowhide and horsehide splits that were 12¢ to 14¢ a sq. ft. in June

THE MARKETING PATTERN

Research Audit

An important outcome of the National Public Opinion Research Conference recently held in Denver is that the public opinion researchers will form a trade association to police and audit research methods.

This news should be of more than passing interest to marketers, even though the conference was not directly concerned with their field. Insiders assert that the real bogey of the opinion-research fraternity is Washington. Since a polling of the public on important questions sometimes appears to Congress to constitute a club over its head, it is only natural that the lawmakers might try to get rid of that club. Therefore, the proposed guild will try to constitute itself an arm of protection for the researchers—by providing a guarantee to the public that the research work is fair and above-board, and that Congress would be wrong in trying to hamper it.

Benefits

Marketers may get some indirect benefits from the new organization. For, once researchers begin setting up standards and audits, it is conceivable that these quality-guarantees could spread to the whole area of marketing research.

Nothing could be more desirable.

At this late date, of course, marketing research no longer needs self-advertising. It is by now generally accepted that marketing research (1) can accurately determine past or current phenomena—such as a count of the number of outlets handling a certain brand and sales thereof, and (2) can often predict future phenomena with remarkable accuracy—such as acceptance of a new product, or results of a forthcoming advertising campaign. It is also conceded that great strides have been made in measuring intangible phenomena such as opinions, attitudes, reasons, etc., and that a small, well-chosen sample is an accurate mirror of the whole statistical population.

On the other hand, while these

propositions are potentially true, their truth hinges entirely on who is handling the research. Whereas an honest, experienced practitioner can attain accuracy practically all the time, a quack will almost never get there. So, like all professions, marketing research needs a professional association or guild to set up benchmarks.

Clearinghouse

Further, some clearinghouse of ideas is desirable. None exists now—except as an adjunct of other associations or academic groups.

Among researchers themselves, there have been numerous evidences that a pooling of ideas—and perhaps even physical tools—would be advantageous. In the absence of an association to set standards, it has become quite common to hire braintrusts (usually professors from nearby universities) to assay research jobs for a fee. Such braintrusts often work for four or five houses simultaneously. Pooling of interviewers is another not infrequent practice.

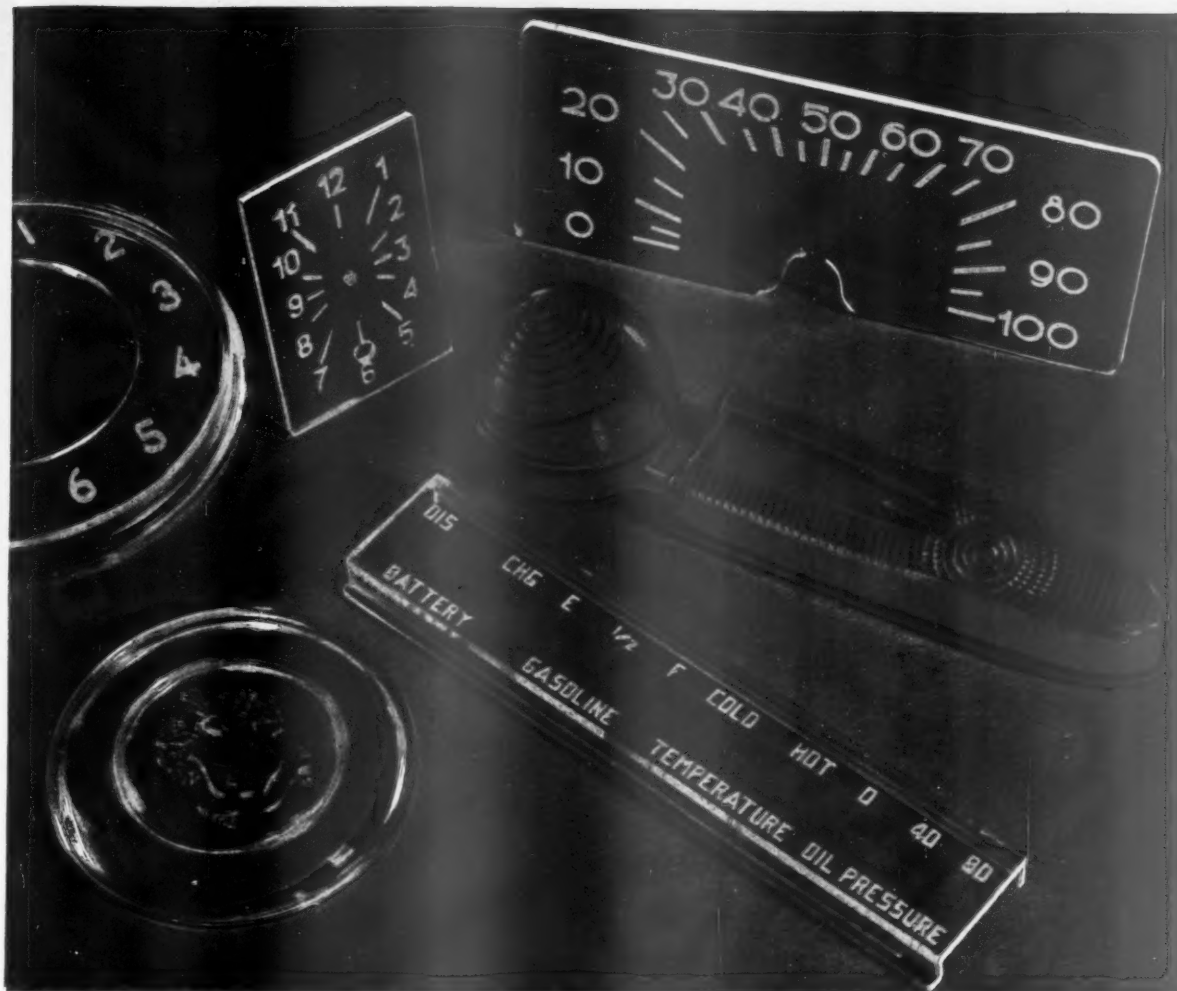
Trends

With the new growth of full-fledged research departments among manufacturers and distributors, the trend toward unification of effort and improvement of quality should accelerate. So also should a trend toward educating top management to (1) read research results more accurately, (2) know what to do with the findings, (3) evaluate the quality of the work, and (4) pick additional fields for probing. All this would lie in the province of a research guild.

Incidentally, the busy executive who wants a quick survey of current trends in marketing research can get a fair idea by reading:

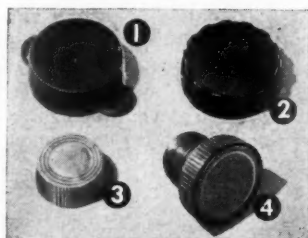
Statistical Sampling Techniques and Marketing Research, by Ralph Cassady, Jr., *Journal of Marketing*, April 1945, pp 317-341.

How Good Is Marketing Research?, by F. L. Thomsen, *Harvard Business Review*, Summer Number 1946, pp 453-465.



WHAT TIME?... HOW FAST?... GOT GAS?

Du Pont "Lucite" answers car owners' questions... car makers', too!



WHAT'S NEW

Bottle closures of Du Pont polythene utilize polythene's chemical inertness, low water absorption, toughness and flexibility over a wide range of temperatures. Polythene closures need no liners. Available in many pleasing colors. Shown are: (1) "snap-on" beverage cap, (2) liquor-bottle cap, (3) cosmetic-bottle cap, (4) plug-type cap. Made by Lumelite Corp., Pawling, N. Y.

On 15 different makes among the 1946 cars, you find 58 parts made of "Lucite"—clear indication that the automobile makers are giving Mr. and Mrs. America the beauty, the smart styling, the performance they demand.

Wherever "Lucite" acrylic resin is used, lasting beauty is gained. The crystal clarity, high optical qualities, the "edge-lighting" property of "Lucite" give excellent service... add smartness. Resistance to weathering helps "Lucite" keep its sparkle for years.

In many fields manufacturers date their discovery of the best way to improve a product, or to build a new one,

Parts molded by: Michigan Molded Plastics, Dexter, Mich.; Plastic Molders, Inc., Chicago; Hoosier-Cardinal Corp., Evansville, Ind.; Electric Autolite Co., Bay City, Mich.; Franklin Plastics, Franklin, Pa.

from the day they got a full knowledge of the Du Pont plastics. E. I. du Pont de Nemours & Co. (Inc.), Plastics Dept., Room 608, Arlington, N. J.





Steamboat Race Along Hollywood's Famous Sunset Boulevard

Blasé Hollywood thought that it had seen almost everything. But when the new, animated, spectacular outdoor sign for "Southern Comfort" first lighted up on the famous corner of Sunset and Vine, the sophisticated movieland folks crowded around like kids to watch the steamboats stoke up, belch white clouds of smoke and race proudly up the river.

The effect is so realistic, according to rumor, that bookies from Santa Anita Race Track took bets as to which steamboat—the Robert E. Lee or the Natchez—would be first to breast the finish-line!

Real winner, of course, is the maker of "Southern Comfort," the Grand Old Drink of the South, whose sales are rising like Old Man River at flood-time. This "100-proof" spectacular sign—the largest one-piece animated transparency ever erected—is just one of many outdoor displays created by *Engineered Advertising* to help "Southern Comfort" win sales-leadership in the traffic-busy West.

Only a limited number of companies require advertising that is as colossal in size as the outdoor showings of Southern Comfort. But any company can profit by advertising that is engineered to be colossal in its results. The eloquent proof of this is to be found in the continued sales-growth of our clients and our own organization, Brisacher, Van Norden & Staff.

Engineered Advertising works no miracles. It only seems to, because it is so soundly planned and executed. If you have read this far, the chances are that your thinking and ours are closely akin. May we have the opportunity to talk it over with you?

Brisacher, Van Norden & Staff, Advertising Engineers, have been serving many leaders of industry and commerce since 1919. Main offices in New York, San Francisco and Los Angeles; Radio Headquarters, Hollywood; Service offices in Chicago, Portland, Seattle and London, England.

were 22¢ to 24¢ by mid-July. OPA recently allowed tanners a 6% increase over the June ceilings. Easing the supply problem, the Big Four packers on Aug. 8 began offering hides to tanners at the legal maximum of 15½¢ a lb. But there is little selling by the smaller packers, whose combined total of available hides equals that of the Big Four. Industry spokesmen say the price should be 20½¢ a lb.

The situation is the same for canvas work gloves. Regular 8-oz. Canton flannel of which they are made was 25.58¢ a yd.; in July's free market it sold at 31.5¢ to 35¢ and now has a new ceiling of 29.74¢. Thus canvas gloves that cost a dime in 1939, and 23¢ under the old OPA, rose to 35¢ in July and are now under a 25¢ ceiling. How long the free price of cotton will permit a profit to be made at these prices is problematical.

RADIO HOSPITAL PLAN

Maintenance of electrical appliances on an annual basis is a merchandising device that's getting increasing attention among veterans going into the repair business. Latest evidence comes from Rochester, N. Y., where two ex-servicemen, John B. Gottermeier and William J. Ross, have set up the Rochester Radio Hospitalization Service.

Early this month the partners put ads in Rochester papers offering a year's complete maintenance and parts replacement on any make or model for a fixed fee. Before a radio is accepted for the service it is given a complete inspection to insure that it is in good operating condition at the time the agreement is made. The annual fee ranges from \$2.50 for a table model to \$12.75 for a radio-phonograph-recording combination.

"Hospitalization insurance" for electrical appliances has been tried often, with varying degrees of success, on all types of appliances. Gottermeier and Ross say they got the idea when they read in a trade publication that the Carillo Radio Shop of San Diego was using the plan successfully, and that their schedule of fees was also taken from that of Carillo's, who had figured it out on the basis of the average of repair costs.

P. S.

Family Circle magazine will become a slicked-up monthly in September at 5¢ a copy, now that production costs have jumped too high to continue it as a weekly give-away sheet. Its former circulation was about 1,500,000 through Safeway grocery stores; now an estimated 100,000 will be added from sales through First National Stores of New England. Distribution will con-



SHEAR COMFORT

From their "Barber Rest," barber Stephen Butz, of Zion, Ill., and his aid relax while they snip and trim. The tandem seat is adjustable for tall or short patrons, swings around for side trimming, folds down when not in use. Butz makes it under the name of Stephen C. Butz & Co.

tinue only through chain grocery outlets, as before.

United-Rexall Drug Co., exponent of diversification and supersize in drug stores, has purchased the Franklin Hosiery Mills, Williamsport, Pa. Franklin's entire nylon output will be channeled to consumers through the United-Rexall outlets.

If Walter Hoving's inspection tour of Pittsburgh pans out, the Golden Triangle will get a Bonwit Teller specialty shop. Hoving heads the corporation of the same name recently launched to acquire department store and specialty outlets (BW—Jun. 8'46, p79). First purchase was Bonwit Teller, New York, for which branches in other cities are now planned.

The National Council of Salesmen's Organizations is pointing out to members that the revival of OPA means extension of the Wage Stabilization Board. Without official approval, an employer may not "reduce the compensation of any salesman or other administrative employee coming within its jurisdiction (those earning \$5,000 a year or less at the time application is made). If the salesman is on a straight commission basis, the rate of commission may not be cut without prior approval of the board."

Jack Your Newspaper

WAY back in the woods Norton starts to have a part in producing your newspaper—when axes and saws sharpened by Norton grinding wheels fell the trees and cut them to pulp wood lengths.

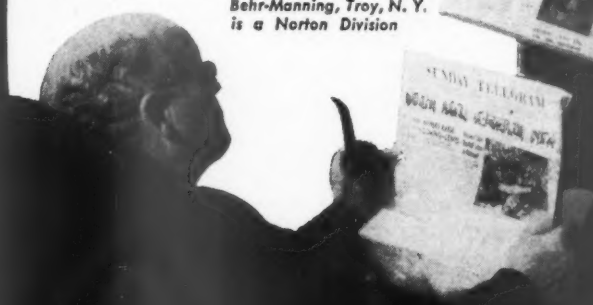
Then at the mill the wood is ground into pulp by Norton Pulpstones—gigantic ten-ton, segmental grinding wheels as large as six feet in diameter and 54" wide—wheels developed by Norton research to replace nature's sandstones.

Alundum Laboratory Ware is used in the mill laboratories and Crystolon Brick in the power plant.

Machines that convert the pulp into paper and complicated presses which print your newspaper contain many rolls and other parts precision-produced by Norton grinding machines and grinding wheels.

NORTON COMPANY
WORCESTER 6, MASS.

Behr-Manning, Troy, N. Y.
is a Norton Division



NORTON

PRODUCTION

Cosmetics Output Spirals

With dollar volume up 65% over 1940, industry expects to hold war gains. U. S. synthetic aromatics production expanded by import stoppage. Men's toilet preparations offer big new field.

Despite wartime shortages of everything from imported aromatic oils to packaging materials, America's cosmetics and perfume industry managed to increase its retail dollar volume a thumping 65% from 1940 to 1945. Now it looks forward to even palmier days.

Out of the industry's wartime experience have come new processes and ingredients, new substitutes and sources of supply. Perhaps even more important, a whole new segment of the population, male and female, has been introduced to the perfumes, toilet waters, lotions, deodorants, and other articles that make up the cosmetic and toiletry line.

• **Supply Problem**—Despite the steady growth, between 1920 and 1940, of domestic sources of supply for some of the multitudinous natural and synthetic substances that are blended into perfumes and cosmetics, the industry remained dependent upon imports for the lion's share of essential oils, aromatics, and fixatives. World War II brought more and more material procurement problems as the Axis powers, besides controlling important aromatics producing areas, overran still other regions.

Shut off, or in reduced supply, were such essentials as the various orris products and bergamot from Italy; civet from Ethiopia; jasmine absolute, rose absolute, tuberose absolute, orange absolute, oil of neroli petals, and lavender oil from France; geranium African from Algeria; geranium Bourbon, ylang Bourbon, vetiver Bourbon, and Bourbon vanilla beans from Madagascar and Reunion Island; Yugoslavian oak moss; Bulgarian otto of rose; citronella Java, conanga Java, vetiver Java, patchouli from the Dutch East Indies.

• **Cooperative Research**—America's entry into the war caused other crises as domestic supplies of alcohol, glycerine, and metal for packaging were requisitioned for military and essential civilian needs.

Fortunately the big importers had accumulated three-year inventories of essential oils. The problem was to develop new formulas to conserve these oils and to find substitutes in whole or in part for scarce materials.

Through the Toilet Goods Assn., Inc., a scientific advisory committee was

set up. Precedent was tossed overboard in this venture; instead of the secrecy which heretofore had surrounded each firm's research and development work, there was an industry-wide sharing of knowledge and ideas.

• **Production Freed**—The scientific advisory committee periodically issued bulletins suggesting new ideas for substitute materials and supplies, possible modification of perfume and lotion formulas to conserve alcohol, methods to circumvent the container and closure shortages, chemicals that might be used to replace those in short supply.

Early in 1942 the War Production Board placed production restrictions on the cosmetics and perfume industry. A few months later, after some high-pressure selling by industry representatives, these were revoked. The industry still was limited by over-all restrictions on critical raw materials, but it was free to use its ingenuity to find new materials and build up its output as best it could.

• **New Markets**—The combination of industry cooperation and freedom from production limitations gave perfume and cosmetics makers the opportunity they needed to meet the growing demand for their products.

People had more money to spend, men's cosmetics were beginning to take hold sensationally, farm women going into war plants learned the morale-building qualities of lipstick and perfume and the worth of skin-protective preparations for those doing dirty manual work.

Higher material costs were only a minor handicap (although jasmine absolute, for example, went from \$400 a lb. to \$2,000 or more; otto of rose from \$4-\$6 an oz. to \$35-\$40). Sales, advertising, and distribution costs always have represented the major share of the retail cost of any cosmetic.

• **U. S. Sources Expanded**—Retail sales of perfume, cosmetic, and toilet preparations (toilet soaps excluded) rose from \$400,000,000 in 1940 to \$660,000,000 in 1945, and are expected to hold near that figure this year. And the United States has emerged from the war with an aromatics industry capable of supplying a substantial portion of the cosmetics industry's requirements for "sweet smells."

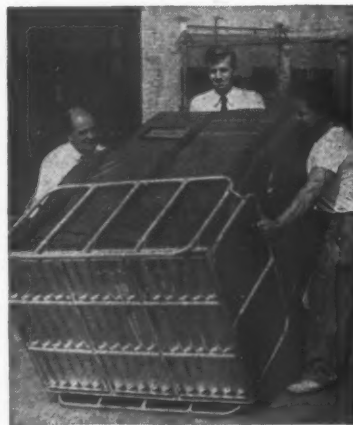
Natural oils such as lemon oil, dillweed, wormwood, sassafras, peppermint, and terpineol are being obtained from domestic sources. Synthetics (some in varying degrees of production before the war) include such important oils as bergamot, phenyl ethyl alcohol (rose aroma), hydroxy citronellal (lily aroma), and ylang ylang ("the flower of flowers"), to mention only a few. To what extent synthetics will continue to replace the natural products is not clear, but in differing degrees all probably will be in continued demand.

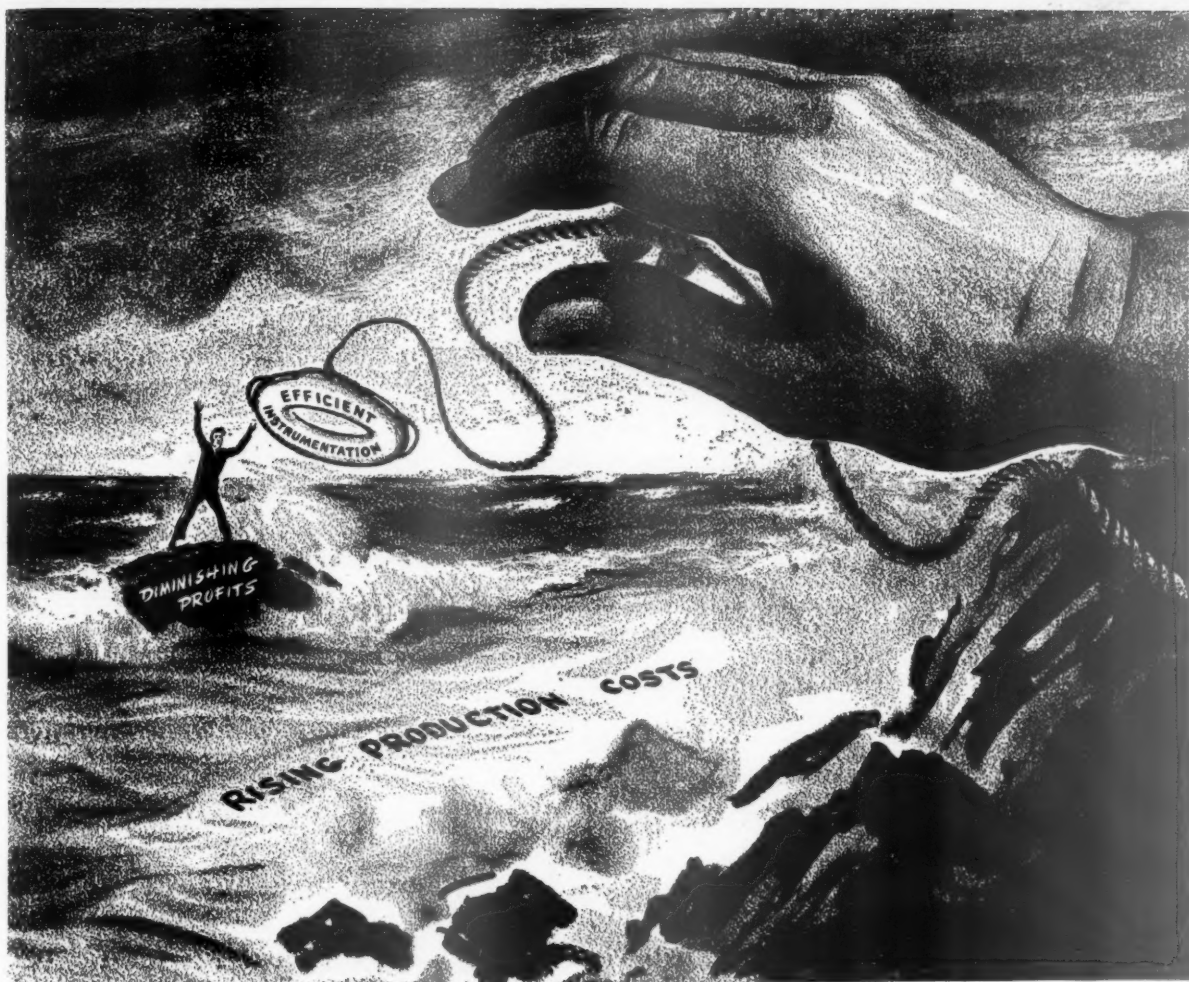
• **Aromatics Market**—Synthetic aromatics are in increasing demand in a host of other industries besides cosmetics. Synthetic rubber product makers are using carefully chosen odors to eliminate

Pallet Simplifies Loading of Aircraft

A new cargo pallet designed to speed loading of aircraft is made of aluminum alloys and weighs only 19 lb. Cartons and boxes are placed on the pallet with a waterproof nylon blanket over top and sides. Then the completely blanketed cargo is lifted into the plane or truck. Skids at the bottom of the pallet, which is especially adapted for use with fork lift or platform trucks, permit easy placement of load.

The dimensions of the device (three by four feet) make an aisle possible through the center of two rows of cargo in a DC-3 or C-47. The blanket weighs 8 lb. in nylon; can also be had in Fortisan or duck.





Here's Help for Your Business!

IF THE TIDE OF RISING PRODUCTION COSTS is reducing your profit spread, Foxboro Instrumentation may be able to help you . . . by increasing production efficiency.

For more than 30 years, Foxboro has proved outstandingly successful in achieving greater output at lower cost for such industries as petroleum, textiles, food, metals, ceramics, paper and others. In some cases, this has been accomplished through new and improved applications of instrumenta-

tion to existing installations. In others, by putting manually-controlled operations under instrument control for the first time.

Why not discuss your problems of controlling temperature, pressure, flow or other variables with Foxboro engineers? Even if your plant now employs many instruments, you're almost certain to uncover new short-cuts to higher production at lower costs. Write: The Foxboro Company, 120 Neponset Ave., Foxboro, Mass., U. S. A.

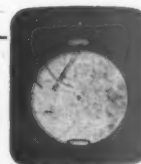
FOXBORO Instruments

REG. U. S. PAT. OFF.

RECORDING

• CONTROLLING

• INDICATING





"Cat" Trains

When winter closes the water routes and interferes with airplane transportation, caterpillar tractors pull small box cars of supplies 1,000 miles or more over snow trails to Northern Canada's gold and uranium mines.

This is just one form of Canadian enterprise that reaches to the Sub-Arctic. Another is the service of The Canadian Bank of Commerce, with branches in the territory covered by the "Cat" trains—part of an enterprising banking system with branches across Canada and extending to the United States. It is at your command for Canadian trade and financial transactions.

Monthly Commercial Letter upon request.

THE CANADIAN BANK OF COMMERCE

Head Office: Toronto

NEW YORK SEATTLE PORTLAND, ORE. SAN FRANCISCO LOS ANGELES

More than 500 Branches Across Canada

For the Educated Nose

Perfumes aren't just a combination of one or two aromas, but a carefully blended admixture of dozens of components. Variations in the components or in the quantities of each that are used account for differences in olfactory effects and the quality and cost of the finished product.

A typical perfume, for example, contains three types of ingredients: odoriferous components, diluting agent, and fixative. In one particular French-type perfume, there are seven floral odors, jasmine, violet, lily of the valley, carnation, orange blossom, and mimosa (all but the last two synthetic), and four oriental odors, sandalwood, vetiver, styrax, and patchouli (all natural).

Then three odors are added to modify the basic odor of the perfume: coumarin, a synthetic having the smell of new-mown hay; oak moss, with its earthy odor; and ylang ylang. Finally, musk ambrette, a synthetic fixative, blends the odors into one and confers permanence on the resultant blend, and alcohol is used as the diluting agent.

a suggestion to Management concerning a possible profit leak

Your plant's electrical distribution and control system, like thousands of others, may have taken a terrific beating during war production years. If any part of it has become overloaded, poorly located or improperly applied for present needs, serious losses are a certainty.

Why not ask your head electrical man to check on this very important segment of your business? If such a profit leak exists, a Square D Field Engineer will be glad to work with him in plugging it.

Field Engineering service is available, without obligation, through Square D offices in 50 principal U. S. and Canadian cities.



Wherever electricity is distributed and controlled

SQUARE D COMPANY

the unpleasant smell of various items; hosiery and lingerie are being scented to increase sales appeal; fragrant is being added to plastics, glue, paint, ink, shoe polish, paper, and many other consumer products.

These developments explain in part why the production of synthetic aromatics has risen from \$4,000,000 in 1938 to perhaps \$22,000,000 this year.

In the cosmetics field, the biggest potential market lies in men's preparations. More than 200 men's lines are now being offered.

PLASTICS DATA RELEASED

With the release of advance chapter five, "Cementing and Assembly of Plastic Parts," the initial technical program of the Society of the Plastics Industry is rapidly nearing completion.

Previous chapters of the proposed handbook on plastics design cover classification, inserts, testing, tolerances. They are now available at the society's office, 290 Madison Ave., New York City.

Technical work in the preparation of the handbook is being done by committees representing plastics manufacturers, molders, and users, and has been underway for several years. The complete handbook is expected to be ready for publication next spring.

Advertising in **FACTORY** REACHES INDUSTRY'S THOUSANDS OF NEW PROSPECTS

Manufacturers of industrial equipment and supplies have many thousands of new *good* prospects for their products as a result of tremendous war-time expansion in the manufacturing industries.

These new prospects are the thousands of new plants

of important size established since 1939—and the multiplied thousands of plant operating men in those plants who are their major buying influences. Figures from indisputable sources show the extent of industry's expansion over 1939 levels.

INDEX OF INDUSTRIAL PRODUCTION from 109 to 175—up 59%

DURABLE GOODS from 109 to 200—up 83%

NON-DURABLE GOODS from 108 to 170—up 57%

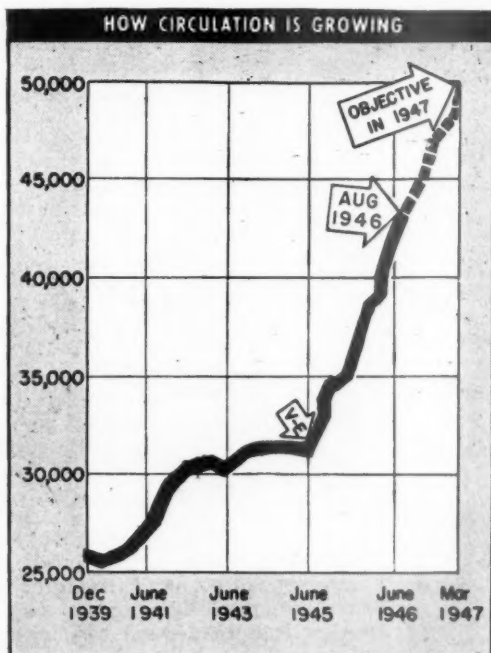
GROSS NATIONAL PRODUCT from \$88.6 billions to \$190 billions—up 115%

Sales executives in the major manufacturing areas tell us that they don't need statistics to prove to them that their markets are greatly expanded. Their own sales analyses and salesmen's reports show it.

FACTORY insisted on *actual facts* about industry's growth on which to base its program of expanded service. The McGraw-Hill Census of Manufacturers has

analyzed reports from over 100,000 plants, to learn how much industry has grown, how many plants of important size there are now and where they are. Best prospects are those plants employing over 100 people, and the McGraw-Hill Census of Manufacturers reveals that there are

THOUSANDS MORE PLANTS EMPLOYING OVER 100 PEOPLE THAN IN 1939



This is the chart of **FACTORY**'s growth in paid circulation under the *strictest possible standards*. These standards make sure that **FACTORY**

- Covers the great number of **ADDITIONAL** plants of important size which have been created by our expanded economy.
- Concentrates circulation in the **MANUFACTURING INDUSTRIES**—in plants of worthwhile purchasing power.
- Concentrates on the **PLANT OPERATING MEN**, and reaches only the **TOP MEN** among the plant operating group.
- Secures **PENETRATION** in the larger plants.
- Achieves **BALANCED** circulation—**BY INDUSTRIES** and **GEOGRAPHICALLY**, with greatest strength where the purchasing power is greatest.

INTERIM CIRCULATION AUDIT

Ask your **FACTORY** representative to show you the Interim Circulation Audit so that you may see for yourself how these objectives—so important to your selling message—are being met by the new subscribers who are *buying FACTORY* in unprecedented numbers.

Circulation objective for 1947 is 50,000—and in 1947 **FACTORY** will deliver **50% MORE BIG PLANTS** (100 or more employees) —**TWICE AS MANY PLANT OPERATING MEN** than prewar ... At a **LOWER RATE** per thousand than the five-year prewar average.

Sell the men in the plant—who get out the production—Who buy and use modern equipment—**THE PLANT OPERATING GROUP**. **FACTORY** gives you more of them than any business paper published.

A MCGRAW-HILL PUBLICATION

FACTORY

MANAGEMENT
AND
MAINTENANCE

ABC • ABP

330 WEST 42nd ST. NEW YORK 18, N.Y.



Look for the
Continental Red Seal
It identifies the finest
in Every Field of Power

POWER BY

Engines
CONTINENTAL

This year, with a starving world to feed, American farms have been called upon to produce more than ever before. It is a job for power, a job that Continental power is performing. There's a complete line of Red Seal engines for agricultural equipment; Diesel and gasoline models used by makers of tractors, trucks and all forms of powered farm machinery. There's even Continental's "Tiny Tim" power unit for battery charging and individual lighting systems. Whatever the requirement, the rugged design and sturdy stamina of Continental Engines are providing farmers with the dependable, low cost power to do the job.

Continental Motors Corporation
 MUSKEGON, MICHIGAN

44 YEARS' SPECIALIZED EXPERIENCE BUILDING ENGINES
 FOR TRANSPORTATION, INDUSTRY, AVIATION AND THE FARM

Pebbles Heat Gas

New heat transfer unit is an adaptation of an old principle. Uses include preheating of air for combustion of fuels.

Utilizing a principle well-known to ancient man, who heated water with hot stones, a heat transfer unit developed by Babcock & Wilcox Co., New York, will heat gases to temperatures as high as 2,300 F and handle up to 40,000 lb. of gas an hour.

A continuously moving bed of refractory pellets is first heated by high-temperature gases, usually furnace combustion products. The bed then gives up its heat to cold gas passing through it.

• **How It Works**—The heater consists of two refractory lined chambers, one above the other, joined by a throat section of reduced diameter. The heater is completely filled with pebbles which form a permeable bed in each chamber. Pebbles descend at a constant rate and discharge from the bottom chamber through a mechanical feeder before being recycled.

In the top zone, pebbles are heated by the countercurrent flow of hot gases from a built-in furnace. Hot pebbles descend through the throat to the bottom section, where they raise the temperature of the gas flowing through the bed. Flow of gas in either direction between the two chambers is prevented by maintaining the same pressure throughout the system.

• **Rapid Heating**—High efficiencies and rapid heating result from the unusually high heat transfer surface available. For $\frac{1}{8}$ -in. diameter pellets, the surface area per cubic foot of volume is 135.5 sq. ft. Temperatures to which gases can be heated are limited only by the limitations of the refractories used and the combustion temperatures obtainable.

Three types of spherical pellets have been successfully used: Kaolin, mullite (72% aluminum oxide, 28% silicon dioxide), and an 85% aluminum oxide composition. These pebbles must be hard enough to withstand abrasion, have a structure which will withstand repeated heating and cooling, and be so heat-resistant that no softening or incipient fusion will cause them to cluster.

• **How It Is Used**—Most common application to date is the preheating of air used for combustion of fuels. By using highly preheated air, temperatures can be attained which have been generally considered to belong to the field of electric arc furnaces, and which far exceed the temperature required for melting steel.

Such high combustion temperatures

have made possible a continuous melting process used in the manufacture of heat-resistant refractories. Mineral fiber or "wool" has thus been made which can find end use at exceptionally high temperatures.

• **In Direct Firing**—It is also possible to use the pebble heater in the direct firing of ceramic ware. This permits a kiln design more compact and efficient than many of those now in use. The absence of any reducing constituents in contact with the ware gives a condition comparable to that in an electrically fired kiln.

GLASS PIPE WELDED

An important step in construction technique with glass piping, developed during the construction of the Clinton Engineering Works at Oak Ridge, Tenn., is expected to find wide use in industry. The method, which is essentially a new field technique for welding glass piping, lowers fabrication costs and reduces installation time considerably.

Industrial use of Pyrex (boro-silicate) glass piping is, in itself, not new. But conventional methods of joining sections lacked flexibility and required detailed specifications and drawings for the supplier who prefabricated the sections for a particular job. Changes, which occur on any job, caused slow-



FOR HEAVY GOING

Further indication of big things ahead for industry is a new rubber giant—the largest "truck" tire Goodyear Tire & Rubber Co. has built. For earth-moving jobs, where a tire must support 15 tons, the 27.00x33, 1,482-lb. behemoth is 7 ft. high, has 24 plies of heavy-gage rayon. At 10 m.p.h. and 40-lb. inflation, load rating is 31,050 lb. Price: about \$1,500.



Give them the security
of a firesafe

CONCRETE HOME

Above all in your new home you want *security* . . . for your family and personal belongings.

You can have security—and economy, too!—with *Concrete* for walls, floors and foundation. Concrete takes the blue ribbon for protection against fire, storms, termites, decay.

Beauty—Colonial to Modern

Beauty you can have in any style; with concrete's wide range of colors and surface textures. And comfort! Concrete homes are cool in summer and easy to heat in winter.

Costs Less Per Year

The first cost of concrete is little or no more than for a non-firesafe home, and you'll save money year after year because of lower upkeep. Today concrete is a better "buy" than ever

before because of improved methods of construction.

Concrete subfloors . . . firesafe, sag-proof, quiet . . . should be in every home. Use any floor covering you desire—carpet, linoleum, tile, hardwood, terrazzo.

HOW TO GET A CONCRETE HOUSE...

What will it cost?

To get information on a concrete house and what one will cost in your community, phone a local concrete masonry manufacturer for names of architects and contractors experienced in concrete house building. They know local conditions and can answer your questions about plans and costs. We'll send you free booklet describing construction of concrete houses. Distributed only in United States and Canada

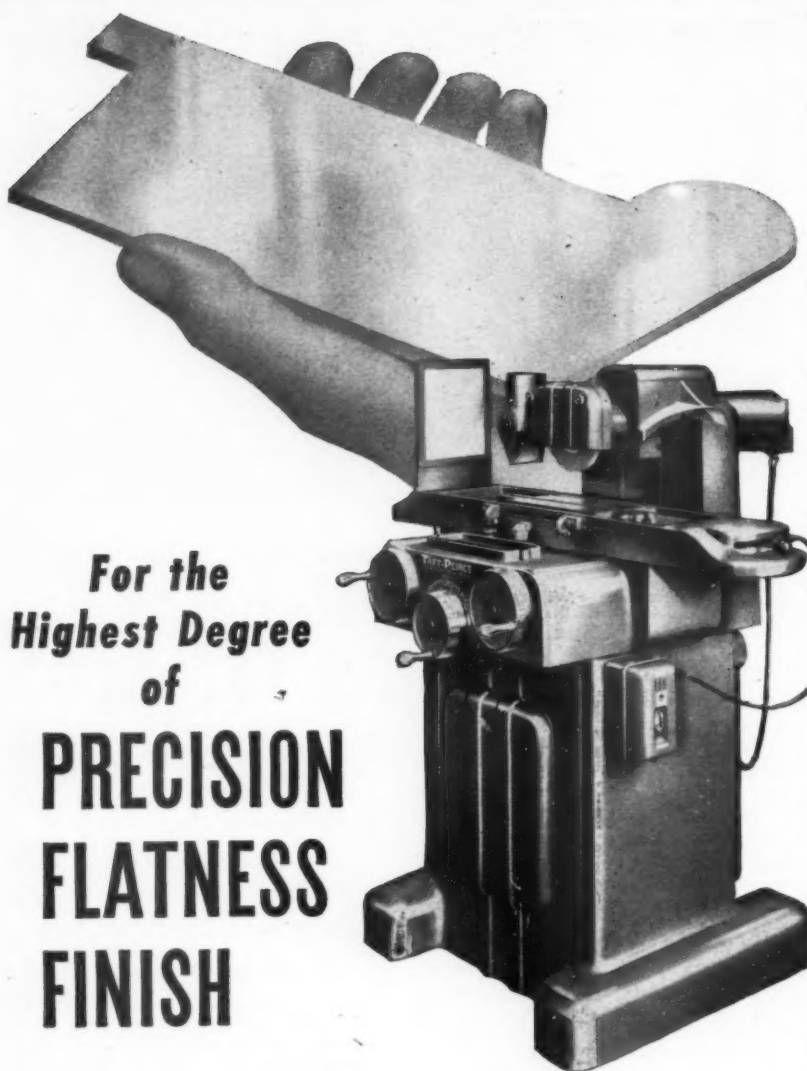
PORTLAND CEMENT ASSOCIATION

Dept. 8d-12, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of concrete . . . through scientific research and engineering field work



This charming concrete home in Harrison, N. Y., has firesafe concrete floors and basement.



**For the
Highest Degree
of
PRECISION
FLATNESS
FINISH**

**...grind your Small Parts, Tools and Gages on the
TAFT-PEIRCE No. 1
PRECISION SURFACE GRINDER**

This unusual machine was designed in the Taft-Peirce Small Tool and Gage Division to produce plane surfaces which are flat within closer tolerances than ever before.

It is unique in its tilting wheelhead, which can be set to any angle from horizontal to 30° below center, making it possible to grind difficult angle and shoulder work with the dressed periphery of the wheel. It is unique in its hardened and ground ways and ball bearing mounting of table, saddle, and column, which assure long life and effortless operation. And it is unique in the high degree of precision, flatness, and finish of the work produced.

Through these and other features, the Taft-Peirce No. 1 will extend measurably your present limits of precision on work up to 5' x 12' x 12". Immediate delivery. Write for booklet.

THE TAFT-PEIRCE MANUFACTURING COMPANY, WOONSOCKET, R. I.

downs because the pipe had to be returned to the supplier's shop.

In construction of the A-bomb plant, Stone & Webster Engineering Corp. and Corning Glass Works cooperated in devising a method for field-cutting, welding, and annealing not unlike that used for steel pipe. The 7½ mi. of glass pipe required 15,000 welds.

The pipe is cut by heating with a hot wire, then chilling with a damp cloth, which sets up strains which break the glass evenly. The sections are welded electronically by high-frequency current. (When glass is hot it is electrically conductive.) Annealing (heating the joint in a portable electric furnace to about 500 C for 5-12 minutes) and controlled cooling, within the furnace, at 25-35 C per minute, release the locked-up stresses in the pipe joint.

Pop Corn Flour

Chicago baker's substitute for wheat proves popular with grocers. Firm licenses 20 other wholesalers to use product.

Wholesale bakers—faced with a 25% cut in volume occasioned by President Truman's conservation order limiting them to 75% of the wheat flour normally turned into bread and other bakery products—went on a forlorn search this spring for a filler to replace the missing wheat. Rye and other obvious substitutes were just as scarce.

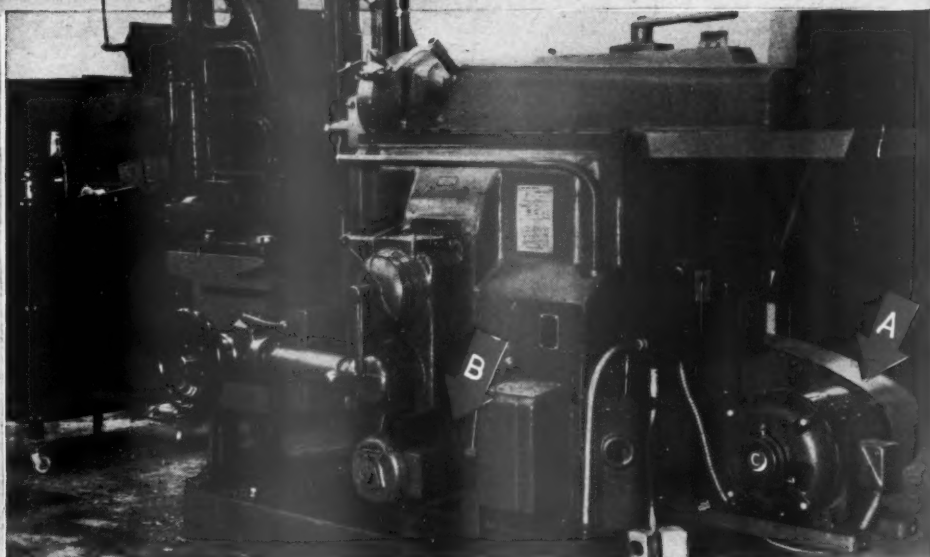
• **Wholesalers Licensed**—In April, the H. Piper Co., big, 80-year-old Chicago bakery firm announced, that it had an answer—pop corn flour. The formula was indicated by the Truman order, 75% wheat, 25% pop corn flour.

The company set up a separate division, the Pop Corn Bread Syndicate, to license popcorn bread to other wholesalers on an exclusive countywide basis. To date, 20 have signed contracts to buy Piper's pop corn flour at \$8.75 a cwt. and pay royalties of 1¢ a wrapper on all goods containing the flour. Piper agrees to plough back 25% of its royalties into each franchise holder's territory for advertising and to furnish bakery engineering service. The company asserts that it makes no money on its flour but only on royalties.

• **Larger Profit**—In a 75-mi. radius of Chicago's Loop, Piper's figures show that 7,000 retail outlets are selling pop corn bread. Sales, says the company, are amazingly good; grocers are pushing the loaf.

Their inducement is 2½¢ profit per wrapper on the 15¢, 1-lb. loaf contrasted with 1½¢ on a standard 13¢ all-wheat loaf of the same weight.

Frostbitten or frozen pop corn, use-



(A) 3 horsepower Squirrel Cage main drive Motor for shaper. Top half of motor enclosed. (B) $\frac{1}{2}$ horsepower Squirrel Cage traversing Motor drives the table gears moving the work across the tool travel.

Get All the Precision Your Machine Was Designed to Provide With **CENTURY MOTORS'** Remarkable Freedom From Vibration



Century motors' remarkable freedom from vibration contributes to the accuracy of the driven machine. Their ability to start, come up to speed, and run smoothly, helps to hold the precise tolerances demanded of tool room machinery — minimizes the possibility of vibration creating imperfections in the work.

Century motors are accurately and rigidly constructed — well balanced mechanically and electrically to maintain their smooth operation throughout a long life of satisfactory performance. The Form J design shown in the illustration has the top half of the motor enclosed to prevent chips from falling into the operating parts.

Century motors are engineered to the functional characteristics of the machines they drive to assure top performance.

Specify Century motors — built in sizes from $\frac{1}{20}$ to 600 horsepower.

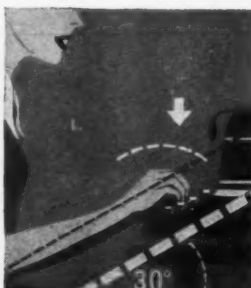
CENTURY ELECTRIC CO. 1806 Pine Street, St. Louis 3, Missouri

Offices and Stock Points in Principal Cities

Correct TYPING TECHNIQUE increases speed... lessens fatigue!



Sit straight yet comfortably... bent forward a little from the hips, and with back well supported. Feet must be firm, too... not crossed or wrapped around chair.



Put hands in rest position, forearms parallel with keyboard (about a 30 degree angle). Don't pound. Use rhythmic fingering. Relax wrists... don't arch them.



Quitting time and still relaxed! She knows her technique and she has a Smith-Corona... engineered for her comfort to make typing easier. See below.



A PROGRESSIVE STEP

Building concrete steps with the customary wooden forms is a tricky job. For one thing, it is difficult to build the forms perfectly square, and even with the hardest forms the lower steps often bulge from the weight of the concrete. To avoid these difficulties, Adam Pollman, Milwaukee building contractor, has developed an adjustable all-steel step form (above) which can be set up in 15 minutes, will hold its full capacity without bulging. Width of treads can be adjusted by shifting the pins.

less for popping, makes good flour. But, because the berry is extremely hard, millers won't grind it. Piper ordered special equipment and does its own milling. Then, due to the heaviness of pop corn flour, the first loaves fell flat. This was overcome by subjecting the pop corn flour to high heat treatment before combining so that it would mix readily with the wheat.

• **To Expand Line**—To Piper, the future of pop corn bread looks bright. On hand are 75 applications for additional franchises. And business is booming (10,000 loaves at Milwaukee in the first two days). Pop corn muffins have been added to the line with pop corn doughnuts to follow soon. Piper officials say they will again bake an all-wheat loaf when flour is available, but that pop corn bread is a permanent addition to their line.

BYPRODUCT YEAST PLANT

A yeast-growing plant is projected by eleven Wisconsin paper companies to utilize a portion of the wood sugars in the 2,000,000 tons of waste products discarded annually by sulphite producers.

The process to be used has been the



REMOVABLE PLATEN

Platen lifts out easily by releasing spring latch on each end of carriage. Manifolding, label writing, card writing made easier by substituting special platens. Makes feed rolls easy to clean.

"IT'S the easiest operating machine our girls have ever used," says an executive of a large insurance firm. "You can't beat a Smith-Corona for dependability and low upkeep cost," writes the purchasing agent for a large eastern manufacturer.

Industry is the proving ground and it's here the Smith-Corona shows up best. Match a Smith-Corona fairly against all others and purchase your next typewriter on the results.

ONE HAND AUTOMATIC MARGIN SET

... only one hand needed to set or clear ... sets right and left margins with one lever. A great time and labor saver.



TABULATOR

Makes typing in columns easy. Single key sets stop for each column. Stops may be cleared individually or all at once without running carriage back and forth. Simple, fast, speeds work, lessens fatigue.

7/8	10	10,000.75
7/8	5	5,000.50
7/8	1	1,000.10
7/8	20	20,001.00



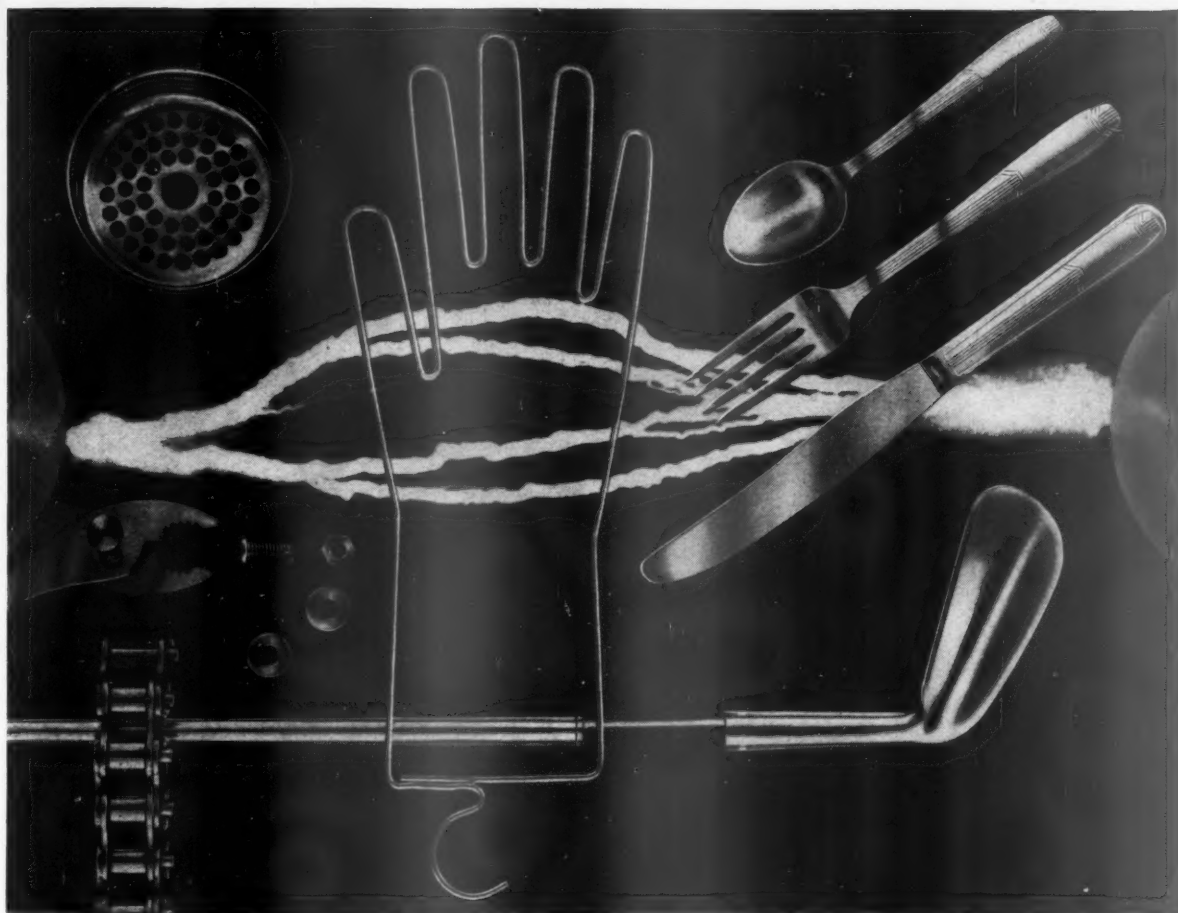
You'll find it easier
with a

Smith-Corona

L C SMITH & CORONA TYPEWRITERS INC SYRACUSE N Y

... makers also of Smith-Corona Portable Typewriters





Electricity Scrubs Stainless Steel Behind the Ears

Your company may be one of many who are considering the increased use of stainless steel to add to the life, attractiveness and sales appeal of your products.

If the product or part to be made of Stainless is of a size or shape that prohibits the use of standard mechanical polishing, it will pay you to investigate the electropolishing process developed by Armco research engineers. By this process, small articles of stainless steel are treated in an electrically charged chemical bath. The surface is quickly polished — products come out brighter than new dimes.

The electropolishing of Stainless is another example

of Armco's assistance to manufacturers in widening the uses of special-purpose steels and bringing their benefits to more people. For many years Armco has been the leader in developing special-purpose sheet steels. It is now one of the world's great producers of stainless steel sheets, bars and wire. Leading manufacturers have found that these special Armco steels speed production . . . put higher quality and longer life into the products they make. The American Rolling Mill Company, 2741 Curtis Street, Middletown, Ohio. Export: The Armco International Corporation.



THE AMERICAN ROLLING MILL COMPANY

• SPECIAL-PURPOSE SHEET STEELS

• STAINLESS STEEL SHEETS, BARS AND WIRE



BLUEPRINT

that may influence your future

DPI research in high-vacuum technology has led to many a new blueprint such as this which may some day influence your future. For DPI offers a unique combination of research and engineering services which may help improve your product or processing methods. For instance:

1. Exploring the production and use of high vacuum.

Original research in high-vacuum chemistry, using vacuums up to one ten-billionth the density of air, has created entirely new types of equipment for many uses. High-vacuum stills, pumps and gauges, special oils and lens-coating equipment are some of them—with more to come, as more applications are found for high vacuum in research and industry.

2. Pioneering in the use of molecular distillation. Many substances "undistillable" before—waxes, heavy oils and fats—come apart magically in the molecular stills, yielding fractions far more valuable than the parent substance. Can a by-product of yours pay dividends through high-vacuum molecular distillation?

3. Expanding the knowledge of the vitamins. A major part of our business is the high-vacuum distillation of bland, stable concentrates of vitamins A and E. Much of what is known about these vitamins today has originated from DPI research. This continuing source of new information has been a useful service to DPI customers.

If there is any way in which DPI experience can be useful to you, don't hesitate to write.

DISTILLATION PRODUCTS, INC. *Pioneering High-Vacuum Research*

755 RIDGE ROAD WEST, ROCHESTER 13, NEW YORK

"Headquarters for Oil-Soluble-Vitamins and High Vacuum Equipment"

Copyright 1946, Distillation Products, Inc.



subject of research at the Institute of Paper Chemistry, Appleton, Wis., and is said to be a considerable improvement over European processes. Yeasts produced are said to be competitive in price with other animal protein foods (BW—Nov. 24 '45, p. 32), and may also be produced in quality suitable for human food.

The plant, to be built near a paper mill as yet unidentified, will handle 50 tons of pulp waste a day. Successful operation of the initial plant undoubtedly would lead to the construction of others, for the dual purpose of producing low-cost feed and of reducing stream pollution.

Associated in the project are Consolidated Water Power & Paper Co., Detroit Sulphite Co., Nekoosa-Edwards Paper Co., Falls Paper & Power Co., Rhinelander Paper Co., Northern Paper Mills, Kimberly-Clark, Hoberg Paper Mills, Flambeau Paper Co., Marathon Corp., and Badger Paper Mills. These companies have formed a Sulphite Paper Manufacturers Committee on Waste Disposal, to study the entire problem of stream pollution.

TALKING BY LIGHT BEAM

Perfectured by Westinghouse Electric Corp.'s lamp division too late for use during the war, a "talking lamp" which uses infrared radiations to transmit two-way conversation over an invisible searchlight beam is expected to have specialized but limited peacetime applications.

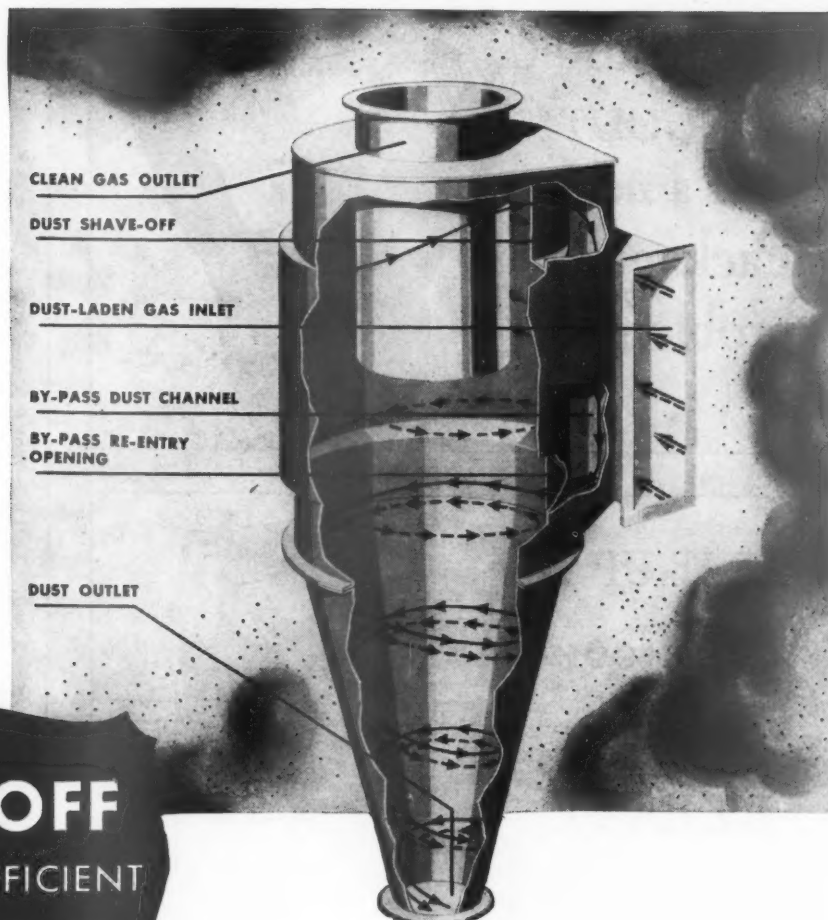
Heart of the new device is a cesium vapor lamp, which is an efficient generator of infrared and which can be modulated to reproduce accurately wavelengths proportional to the varying tonal qualities of the human voice. Its modulability reaches a peak of 100% at some points in the audiofrequency range of 200 to 3,000 cycles per second.

Mounted in a parabolic searchlight-like reflector, it picks up words spoken into a microphone, intensity of the light varying directly with the voice modulations. A photoelectric cell mounted in another parabolic reflector picks up the rays at the receiving end, where they are converted to sound waves by conventional methods.

The infrared beam requires line-of-sight transmission, is unaffected by static and weather—except soupy fog or smoke. Possible uses include ship-to-shore communications, or communications in disaster areas where telephone lines are down and radio is unusable.

NEW PIGMENT PROCESS

A new process that represents the first fundamental change in the manufacture of chrome pigment colors in many years has been announced by E. I.



THE SHAVE-OFF ITS PLACE IN EFFICIENT *Dust recovery*

Six exclusive Buell features

- ✓ 1 THE "SHAVE-OFF"
- 2 LARGE DIAMETERS
- 3 EXTRA-STURDY CONSTRUCTION
- 4 CORRECT HOPPER DESIGN
- 5 SPLIT-DUCT MANIFOLDING
- 6 INNER WELDS GROUND SMOOTH

Under the principles of dust collection established by van Tongeren, the patented "shave-off," found only in Buell Dust Recovery Systems, increases dust recovery by utilizing the double eddy current (present in all cyclone-type collectors) to establish a *highly efficient collection force*. (See pp. 5-9 in Buell's book: "The van Tongeren System of Industrial Dust Recovery.")

The "shave-off" thus enables Buell to achieve high recovery efficiency without resort to small-diameter cyclones—and Buell's large diameters permit construction of extra-thick steel, efficient operation with low centrifugal force fields, and consequent reduction of abrasive wear. These are major reasons why Buell Dust Recovery Systems in use three, four, five or more years have established outstanding records for trouble-free service and low maintenance cost.

Buell's book—"The van Tongeren System of Industrial Dust Recovery"—illustrates and explains the patented van Tongeren principle and its many applications to industry. We will be pleased to send you a copy without charge.

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buell
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SYSTEMS

**TEARING YOUR
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over a new
Packaging
problem?**



**PUT IT UP TO
Dennison
and
RELAX!**



IS your product handicapped for want of an appropriate package... a properly designed set-up box? Then it's time to do something—and the logical first step is to get in touch with Dennison.

Maybe it's smarter styling you want, the kind that adds point-of-sale glamour to a new perfume. Or do you need a protective feature such as used to cushion a thermometer? Perhaps you're looking for a combination unit, a dozen individual boxes in an easel-back display carton.

To the ingenuity Dennison displayed in 1844 when we produced the first domestic paper-covered box has been added a century of developments. Today we can offer low cost, automatic production for chain store packages, patiently engineered special constructions, or elaborate hand-finished cases for costlier merchandise.

If your product calls for set-up boxes, you'll know your problem will be approached with experience and understanding when you put it up to



Dennison
PAPER PRODUCTS THAT PRODUCE RESULTS

Dennison-created set-up boxes are helping other prominent manufacturers obtain better retail displays and sales. If you would like to give your product the same advantage, write today. Dennison Manufacturing Co., 680 Ford Avenue, Framingham, Mass.

TAGS • LABELS • SEALS • SET-UP BOXES • MARKING SYSTEMS • PAPER SPECIALTIES

du Pont de Nemours & Co. The planned installation, estimated to cost \$500,000, will reduce average processing for precipitated pigment colors from a period of four or five days to a few hours.

Pigment colors are made at present in batches in large tanks and vats. Soluble contaminants are then washed out of the precipitated pigments in filter presses. Later operations include drying and grinding.

The new process will replace batch handling with continuous flow of raw material and semifinished pigments through all processing stages. This is expected to improve quality as well as increase production and help meet expanded demand for pigment colors.

Among the pigments to be manufactured by this process is zinc yellow, an important wartime component of rust-inhibitive primers for steel and non-ferrous metals.

The new process is expected to be ready for operation in five months. It will be installed in a building in which silica gel was manufactured for the government during the war.

P. S.

Palladium equals platinum in immunity to tarnish, according to tests made by the U. S. Testing Laboratories, Hoboken, N. J., for the American National Retail Jewelers Assn., it was announced by Baker & Co., Inc., Newark, N. J.

A 2,000,000-volt X-ray machine (BW-Jul.6'46,p50) will be installed by the Babcock & Wilcox Co. this fall. This purchase will substantially increase the equipment used at the B. & W. Barberton (Ohio) plant for the examination of pressure vessel welds, raising to twelve the number of X-ray machines there.

Hot-air engines of 3,000 r.p.m. and higher were built experimentally in the Philips Research Laboratories at Eindhoven, Holland, during the war. This is claimed to be the first major improvement in this important type of engine in more than a century. As a result of new principles which have been developed, a refrigerator of high efficiency has already been proved experimentally in the laboratories.

Semicontinuous casting of rolling and extrusion stock was highly developed by the German light metal industry, according to report PB-20663, Office of Technical Services, Dept. of Commerce. Another major development in the German industry was the use of electrical resistance furnaces in combination with induction melting. Other developments described are the rolling of tapered section sheet for aircraft and electrolytic refining for scrap recovery.

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In the good old summer time —

For millions of Americans, young and old, sunny skies and balmy weather are synonymous with the pleasures of swimming . . . the relaxation of a cooling dip, or the exhilaration of a fast crawl.

Columbia products help to keep swimming the grand care-free recreation it is. Pittchlor* rids captive water of dangerous bacteria, keeps locker rooms, showers and other facilities free of infection . . . just as Pittchlor and Columbia Liquid Chlorine are used to assure pure drinking water for millions every day.



*PITCHLOR—a 70%, highest calcium hypochlorite of good stability in the form of dry, white granules—is a convenient way to put chlorine to work for disinfecting, deodorizing, sterilizing and bleaching. Used by food plants, dairies, laundries, sewage plants, etc., or wherever the oxidizing power of chlorine is desired.



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EF (Hydrated Calcium Silicate) • Calcium
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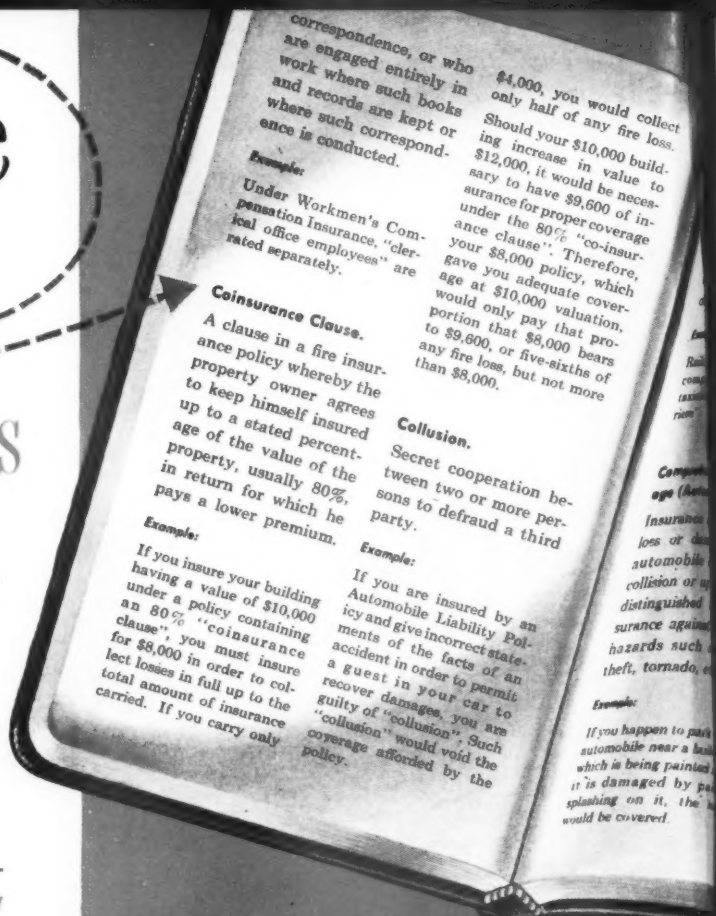


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EMPLOYERS MUTUAL LIABILITY INSURANCE COMPANY OF WISCONSIN

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Home Office: WAUSAU, WISCONSIN

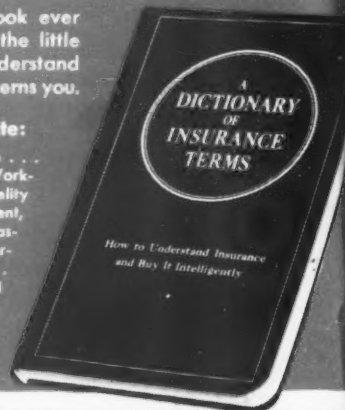


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NEW PRODUCTS

All-Purpose Tractor

An inexpensive, all-purpose tractor designed for commercial growers, small farmers, and suburbanites, called Model S Earthmaster, is announced by Aerco Corp., 12024 Center St., Hollydale, Calif. The tractor has a 22-in. clearance, and is fully inclosed and streamlined.



The automatic transmission is of steel gearing operating in a bath of oil in a dustproof housing. Transmission shafts are mounted on tapered roller bearings with oil seals.

Final drive consists of two roller chains in dustproof housings. Transmission operates automatically, giving variable speeds from $\frac{1}{4}$ to 5 m.p.h. A push on the handle bar causes engine power to steer the tractor. Other features include automatic clutch and reverse gear. Adjustable handles can be raised and lowered for operator's comfort. Plows, discs, cultivators, mowers, and other implements may be quickly attached without the use of tools. Tread can be quickly changed from 26 in. to 36 in. by repositioning wheels.

V-Belt Speed Selector

Stepless speed control from full through zero and into full reverse at constant torque of two-horsepower capacity is available in a new development announced by Speed Selector, Inc., 118 Noble Court, Cleveland, and the B. F. Goodrich Co., Akron. Two standard cross-section V-belts and four variable-pitch pulleys are used.

The Cleveland company developed the new V-belt control, known as the Variable-V-Planetary Speed Selector. B. F. Goodrich will merchandise the product along with its other transmission lines.

In operation, the Variable-V-Plane-

Need More Working Capital?

This new book tells how to get thousands or millions at low cost

A BETTER WAY TO FINANCE YOUR BUSINESS

IF YOU NEED MORE CASH than you can get from present sources, send for a copy of "A Better Way to Finance Your Business." Learn how little money costs, how much more you can get and how long you can use it under our Commercial Financing Plan.

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Financing Plan vs. Time Loans . . . with case histories of the growth and profits which customers have realized through our plan. You'll find that our plan involves no interference with your management . . . and frees you from worries about renewals, calls and periodic clean-ups of your loans.

Send today for a copy of "A Better Way To Finance Your Business" . . . and see why the number of new users of our plan thus far in 1946 is more than double the number for the like period of 1945. No cost. No obligation. Write the nearest Commercial Credit office listed below and ask for booklet "C."

COMMERCIAL FINANCING DIVISIONS:

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FINANCING OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA

*** DON'T MISS
THE POINT!**

WORCESTER

MASSACHUSETTS



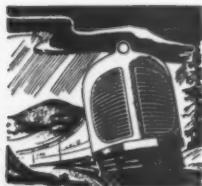
THREE New England centers have main-line facilities of the major railroad arteries which feed this five billion dollar retail market.

Here's how they stand in relation to the market —

	CONSUMERS WITHIN 75 MILE RADIUS	% OF N. E. MARKET
Worcester	6,468,256	76%
Boston	4,974,868	58%
Springfield	4,232,208*	50%

*Including New York State 4,681,726

Worcester is the logical branch plant and distributing center for New England. Served by the three great railroads, more than fifty motor truck lines, and airline service, it lies at the economic center of the New England market.



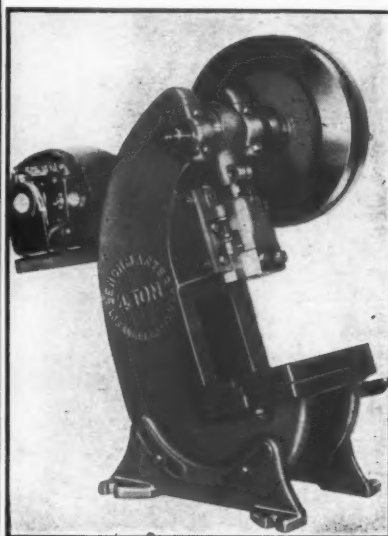
Write the Industrial Bureau, Worcester Chamber of Commerce, for more facts on the right location for your New England branch plant or distributing center. Engineering assistance on your problems is available.

tary Speed Selector system compares the ratios of two V-belt drives and applies the difference in speed to output shafts. Speeds from 400 r.p.m. to zero, forward and reverse, can be obtained.

Speed changes are made with a hand control which alters the pitch diameter of the center pulleys in the conventional manner so that as one is increased the other is decreased, and the change is imparted to the outer pulleys by the wedging action of the V-belts.

Bench Press

Though designed for punching, the new Benchmaster four-ton press is adaptable to stamping, crimping, marking, and riveting operations. The press, which weighs 215 lb. and operates at



285 r.p.m., is manufactured by Benchmaster Mfg. Co., 2952 W. Pico Blvd., Los Angeles 6.

The precision-ground shaft is keyed by press fit to a large eccentric. An oversize bronze bushing incloses the eccentric. Frames are one-piece, semi-steel castings, heat-treated. The open-back design permits work-loading from rear as well as front. Floating motor mount maintains desired belt tension.

Oil Filter Check

A new device, basically a liquid flow-meter, gives visual indication of when a new oil filter cartridge is required. It is manufactured by the Automotive Division of Hunter & Co., 1540 E. 17th St., Cleveland 14. The Filter-Meter consists chiefly of a spool-shaped aluminum indicator inside a 1-in.-diameter glass tube, the base of which has inlet and outlet connections.

Oil passing through the filter must pass through water. The oil flows into the base of the meter and rises in the glass tube, floating the aluminum indi-

What is the lightest part of the load?

RIISING OPERATING COSTS!

RAILROAD INCOME AND OUTGO

(First six months, 1946)

For each dollar of revenue received, the railroads paid out more than a dollar, distributed as follows:

For wages	53.1 cents
For materials and fuel	25.1 cents
For other operating costs	10.0 cents
For taxes	7.5 cents
For interest, rentals and other fixed charges for use of capital	5.0 cents
Total	100.7 cents

AS IN PRACTICALLY every other line of business, the cost of running a railroad has been steadily rising during recent years.

Wages, by far the largest single item in railroad costs, now average 53% more than they were just before the war. Prices of materials, supplies and fuel — the second largest item — are up 47%.

But while operating costs have been rising, the cost of the capital it takes to build and improve

railroads has been going down. Railroad managements have been alert to opportunities to retire indebtedness, or refund it at lower interest rates. As a result, fixed charges on the capital invested are less today than they were in 1912—although investment in railroad plant has almost doubled since then.

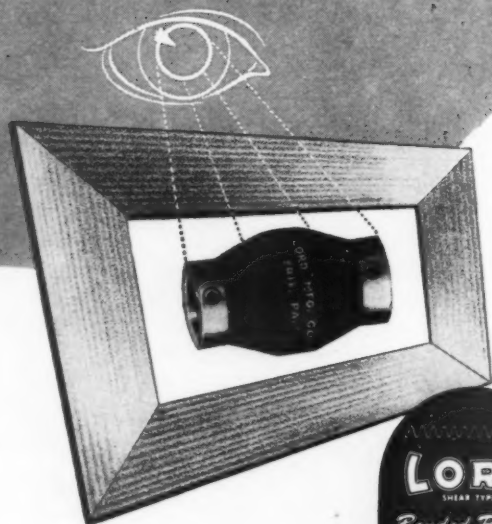
The big part of the cost of running a railroad is the operating cost. The cost of the capital is the lightest part of the load.

ASSOCIATION OF **AMERICAN RAILROADS** WASHINGTON 6, D. C.



IN PARTNERSHIP WITH ALL AMERICA

More than meets the EYE
is built into every
LORD FLEXIBLE COUPLING



ONE of the duties of a flexible coupling is to compensate for misalignment, angular or parallel, between driven and driving shafts. But, unless it can do that with a high degree of flexibility, a strain is put on bearings that greatly shortens their life, reduces power, and increases cost.

The development of a rubber to metal bond of great strength, enabled Lord to produce a coupling having great flexibility and high capacity. This design accounts for the compactness and unusually long life of Lord Flexible Couplings.

Lord Flexible Couplings go even further. They effectively absorb torsional vibration, providing an even flow of power; prevent transmission of sound through the shaft; lend protection to the driving motor from suddenly imposed excessive overload. Less noise, and less vibration mean better workmen and better work. Lord Flexible Couplings are made in seven sizes, for ratings up to one horse power.

Lord Flexible Couplings are another illustration of the scientific engineering that goes into every Lord product. A generation of pioneering the field of vibration control with unbiased concentration on a single objective has made the Lord name a synonym for quality and dependability. Send for bulletin 200A.

Every genuine Lord Mounting carries the name "LORD" embossed in the rubber or in raised letters on the forgings.

IT TAKES BONDED RUBBER *In Shear* TO ABSORB VIBRATION

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CANADIAN REPRESENTATIVES
RAILWAY & POWER ENGINEERING CORP., LTD.
TORONTO, CANADA

Originators of Shear Type Bonded Rubber Mountings

THINGS TO COME

Adhesives that will stand up under all conditions of use, and that will even resist tough military laundries, are being studied as an alternate for thread in stitching uniforms and tents. According to the Army Quartermaster Corps, stitching failures appeared in 59% of garments examined.

- Operating on principles developed for plane heating during the war, a small heater for home use will be produced this fall by Stewart-Warner. The heater, which has large output in comparison to its size, has undergone field testing, will be available late this year.

cator up and down in the cylinder in direct proportion to rate of oil flow.

Construction is such that it is possible to indicate within the 2-in. length of the tube the complete range of oil-flow rates from high to low. Oil condition is checked in two ways: by observing the position of the indicator float; or by inspection of the thin film of oil itself which is highlighted between the bright aluminum float and the glass tube.

The flow rate through a clean cartridge is relatively high, but diminishes as dirt, resins, and carbon particles are deposited.

Condiment Dispenser

Molded of polystyrene plastic, and fitted with a Neoprene plug, the "Pump-It" dispenser, manufactured by Pump-It, Inc., Los Angeles, weighs only 2 oz. and fits all popular brands of catchup bottles. A stainless steel spring is used in the device, which is operated by finger pressure on the plastic plunger.





Rouge, so named because it is located on the River Rouge in Detroit, is the world-famous main production plant of the Ford Motor Company.

It is famous for other reasons than its huge size and great production achievements. It also has the largest steam electric power station serving any industrial establishment, anywhere.

When the Rouge Power Station was built back in 1920, it began setting new records immediately by installing boilers capable of producing 200,000 lb of steam per hour, the largest boilers ever built up to that time, and firing them with pulverized coal — then considered a revolutionary method. Yet only five years later Rouge began rebuilding four of its eight boilers to take advantage of water-cooled furnaces and other new developments which resulted in more than doubling their capacity.

But this was only the beginning of the Rouge modernization program. In 1930 Ford took the drastic step of completely discarding two of the boilers installed only 10 years before and replacing them with two 1400-lb pressure boilers, each capable of producing 700,000 lb of steam per hour. These were by far the largest super-pressure boilers built up to the time. By 1939 the remaining two original boilers had been replaced with 1400-lb pressure units, each of which was capable of producing 1,000,000 lb of steam per hour.

Thus, within twenty years, the most modern industrial power

plant of its time had rebuilt or replaced all its original boilers, had nearly quadrupled its original capacity and had substantially increased its efficiency. And all this was accomplished within the same floor space which the eight original units had occupied.

Because it so impressively exemplifies contemporary progress in the field of steam generation, the Rouge Power Plant is not only a source of pride to its owners but also to Combustion Engineering, the supplier of boilers and all related equipment for Rouge from its inception through every stage of its modernization to date.

A-982

COMBUSTION ENGINEERING

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C. E. INSTALLATIONS COVER ALL STEAM REQUIREMENTS FROM 30 HORSEPOWER BOILERS TO THE LARGEST POWER STATION UNITS





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For 33 years Lawrence Field Warehouse Receipts have provided more working capital for nearly every type of business by releasing money tied up in inventory.

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23 BRANCH OFFICES IN PRINCIPAL CITIES, COAST-TO-COAST

FINANCE (THE MARKETS—PAGE 118)

G. M. Sells Direct

Its private placement of \$125,000,000 of notes comes as latest instance of a trend that worries Wall Streeters.

Wall Street's new issues market won't have the handling of one of 1946's choicest bits of corporate financing—the \$125,000,000 of 1966 and 1976 2½% notes involved in General Motors Corp.'s debut as a long-term borrower. These notes have just been sold direct to insurance companies in a deal requiring no assistance from (and providing no commissions for) any of the Street's underwriting fraternity.

The private placement of new corporate issues in this fashion represents no new financing method (BW—Jun. 9 '45, p. 78). Since 1937, in fact, to the dismay of many investment bankers, this avenue of corporate financing has been used so much that Wall Street statistical authorities have maintained permanent records of all new issues sold direct to large security buyers after private negotiations.

● **Active Competitor**—This competitor of the new issues market, moreover, has been particularly active in recent months. May, for example, disclosed such varied private placements as the sale of \$15,000,000 long-term Indianapolis Water Co. 2½% mortgage bonds,

\$10,000,000 five-year 2½% Transcontinental & Western Air debentures, and \$30,000,000 International Telephone & Telegraph 3% debentures.

Since May, besides this month's sale of the \$125,000,000 of General Motors notes (the \$96,000,000 due in 1976 at 99½ of par and the rest at 100½%), private buyers have taken a wide variety of other new issues direct.

● **Important Offerings**—These have included \$50,000,000 Armour & Co. mortgage bonds, \$30,000,000 Budd Co. (BW—Apr. 20 '46, p. 61) debentures, \$80,000,000 and \$25,000,000 of new Texas Corp. and Superior Oil Co. bonds, \$17,000,000 of Iowa Electric Power & Light issues, and many a smaller piece of new corporate financing.

Private corporate financing deals in the first half of 1946 actually numbered 69, involving the purchase of well over \$434,000,000 of new issues. Since mid-year, there have been at least 16 similar transactions, which have resulted in the private sale of some \$320,000,000 additional new corporate obligations. Thus 1946 bids fair to equal, if not surpass, 1945, the previous record year for private placements (box, page 90).

● **Life Groups Buy**—Usually the buyers in such transactions have been one or more of the life insurance companies. More often than not it has been one of the so-called Big Five life group. Particularly active as a private buyer has been New York's Equitable Life Assurance Society. The uptrend obviously springs from an endeavor to save



FOR EFFICIENCY, CHECKS IN TWO SIZES ONLY

Taking their cue from the U. S. and Canada, where uniform checks are the rule, British banks have adopted a new standard form, including a right-hand space for the amount (above). For quick sorting, private accounts will use a 6 x 3-in. size; large companies, an 8 x 4-in. Australia too is promoting a uniform size—and is eliminating "pictorial advertising" on the face of the check.



Pardon Us, Lady,

Your Slip's Showing . . . Research!

And a fine rayon slip it is. Prettier than last year's. Stronger—and with better seams—than the slips she wore some years ago. More comfortable and shrink-resistant than pre-war models. And it stands many more washings than those of ten years back.

Perfect? We can hardly say that; but better and better as time goes by.

Yes, her slip is showing. Showing the results of research by technicians who, with the cooperation of textile makers, devote all their efforts toward improving

rayon's usefulness...in lovelier lingerie, dresses, lining materials, curtains, lampshades...in colorful floor coverings...in tougher cords for your car's tires.

Engineers at American Viscose, the nation's largest producer of rayon, have made great progress with rayon over the years. Their research-born improvements aren't always spectacular. But their goal comes steadily nearer . . . the perfection of familiar products and speeding of new ones . . . with better rayons at lower prices . . . for everyone.

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INVESTMENT CAPITAL Boon or Burden?

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Private Placements

New corporate security issues sold privately in the first half of 1946 totaled 69, a number exceeded only once since the Wall Street trade paper, the Commercial & Financial Chronicle, started keeping a record of such sales.

Also, as indicated in the Chronicle's compilation given below (in millions), the 1946 January-June dollar volume of private sales was exceeded only twice previously.

The full 1946 dollar total might readily exceed that of 1945, judging by the July-August flood of private placements. Contributing to the possibility of a new peak is the congested condition of the public new issues market (BW—Aug. 17 '46, p. 65). This appears to be a stimulant of direct sales.

Year	First Half	Last Half	Total
1937....	\$306.0	\$150.3	\$456.3
1938....	229.8	450.7	680.5
1939....	310.0	418.6	728.6
1940....	327.0	507.6	834.6
1941....	538.5	418.8	957.3
1942....	223.3	210.6	433.9
1943....	91.9	181.0	272.9
1944....	370.8	499.1	869.9
1945....	549.9	700.1	1,250.0
1946....	434.4	*320.0

* BW estimate covering the six-week period, July 1-Aug. 15.

middleman charges and to increase the income from investment portfolios in these days of easy money conditions.

It is evident, too, that corporations these days are more than willing to finance privately. This is understandable, since disposing of new securities in this fashion normally lowers financing costs and averts the trouble and expense involved in preparing the voluminous data that must be filed with the Securities & Exchange Commission when securities are sold publicly.

• Bread and Butter—Wall Street, needless to say, doesn't care for the trend. This isn't surprising since much of the Street's bread and butter (and oftentimes cake) comes from the commissions resulting from (1) underwriting and selling new issues to the public, and (2) the public's subsequent trading in the securities.

One incident that was particularly upsetting to the street occurred about a year ago. At that time Equitable Life actually entered precincts normally sacred to investment banking houses. In a public competitive bidding contest, it boldly snatched away from the Street underwriting syndicates a \$52,000,000 new Pennsylvania R.R. issue by bidding par for 3% bonds, compared with the 99.3899% offered by a group



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headed by Halsey, Stuart & Co. (BW—May 19'45, p64).

• **Bitter Remarks**—Equitable Life followed up a short time later with the private purchase of \$25,000,000 3% debentures from Gimbel Bros. This combination of events evoked some bitter remarks from the Street's smaller houses, some of which feared the eventual loss of a major source of income if something wasn't done about the trend.

The Street as a whole, however, has been made wiser by its many lean years since the 1929 stock market debacle. It has learned to swim with the waves instead of battling them. Thus, while many Streeters don't like the idea, they have not been trying to fight the trend

toward private placements. More than one leading underwriting house, in fact, has been picking up some extra cash by arranging such deals and bringing sellers and buyers together.

• **Unsecured Loans**—The insurance companies, in their search for investments offering "satisfactory" yields, have even gone so far as to make unsecured long and short term loans to corporations in instances where they were entirely satisfied with the credit risks involved.

For example, Commercial Credit Co. recently announced that it had obtained from Equitable Life early this month an unsecured \$35,000,000 five-year 1½% loan "without any commission" or need "for compensating bal-

The Utilities—One of The Postwar Winners

As indicated in a sample of operating results, earnings of most utility companies ran sharply ahead of year-earlier levels in the first half of 1946. Total net income of the industry probably came to around \$350,000,000, compared with the \$268,000,000 of profits in the 1945 January-June period.

• **Favorable Conditions**—Helping out were a rise of some \$20,000,000 in revenues, favorable water conditions which cut the utilities' fuel bill about 15%, and an absence of many of the unfavorable influences recently plaguing the heavy goods industries (BW—Aug. 3'46, p70) and the rails (BW—Aug. 10'46, p66).

Far more important earnings determinants, however, were two other

elements. Absence of the wartime excess-profits tax levy, for example, reduced the industry's 1946 income tax bill by more than \$60,000,000. Likewise of great help was the group's extensive 1945 bond refunding program, reducing fixed charges some \$23,000,000.

• **Costs to Rise**—A less satisfactory showing is expected from here on. Coal now costs some \$30,000,000 a year more than in 1945, and there is no assurance that favorable water conditions will continue. Only now is the group receiving the full impact of its many earlier-1946 rate cuts. And subsequent tax comparisons will be much less favorable.

The following comparative figures are in thousands of dollars:

	Gross Revenues		Income Taxes		Net Earnings	
	1946	1945	1946	1945	1946	1945
Baltimore Transit.....	\$12,104	\$12,573	\$1,752	\$2,267	\$1,084	\$687
Boston Edison.....	25,568	24,048	5,818	6,547	4,103	3,110
Brooklyn Union Gas.....	15,092	14,330	873	1,006	1,442	1,331
Central Illinois Light.....	6,844	6,728	B1,588	B2,044	1,283	756
Cent. Ill. Pub. Service.....	9,699	9,625	997	1,752	2,066	1,216
Cincinnati Gas & Electric.....	C16,503	C16,655	C1,249	C1,958	C2,467	C1,992
Commonwealth Edison.....	97,160	97,720	A—0—	4,877	14,032	11,765
Consolidated Edison of N. Y.....	163,349	153,980	14,026	13,241	25,217	19,732
Consol. Gas, El. Lt. & Gas.....	28,213	28,671	3,069	4,668	4,047	3,572
Dayton Power & Light.....	13,091	11,765	2,543	3,299	2,581	1,288
Delaware Power & Light.....	6,548	6,468	783	1,059	1,204	781
Georgia Power.....	25,703	25,267	B4,469	B5,618	4,116	2,501
Hackensack Water.....	2,296	2,210	113	302	408	315
Indianapolis Power & Light.....	9,195	9,420	1,227	2,317	1,837	1,124
New England Power Assn.....	39,550	38,410	3,501	4,536	3,134	2,337
New York State Elec. & Gas.....	17,375	16,757	1,546	1,412	2,227	2,207
New York Telephone.....	163,195	145,987	B28,447	B40,328	21,160	14,219
Niagara Hudson Power.....	58,073	58,425	5,739	6,067	8,696	3,351
Northern Indiana Pub. Service.....	16,040	16,526	1,610	2,356	2,774	1,849
North American Co.....	87,431	90,420	9,067	14,272	11,721	9,591
Peoples Gas Light & Coke.....	23,119	23,265	2,616	5,291	4,611	2,155
Potomac Edison.....	6,943	6,523	918	1,542	1,278	515
Public Service of Indiana.....	13,445	14,584	1,641	3,432	2,675	1,767
Public Service of New Jersey.....	96,465	93,971	10,680	12,227	13,256	8,392
Rochester Gas & Electric.....	11,476	11,229	621	898	1,571	1,635
Southern California Edison.....	35,176	32,874	5,376	10,353	6,271	5,168
Southwestern Bell Telephone.....	88,532	82,219	6,559	16,073	11,395	8,297
Twin City Rapid Transit.....	8,317	8,054	650	1,252	733	504
Utah Power & Light.....	7,070	6,958	30	601	1,113	967
Wisconsin Power & Light.....	7,259	7,546	811	1,314	1,391	664

A—After deducting postwar refund.

B—All taxes.

C—Five months ending May 31.

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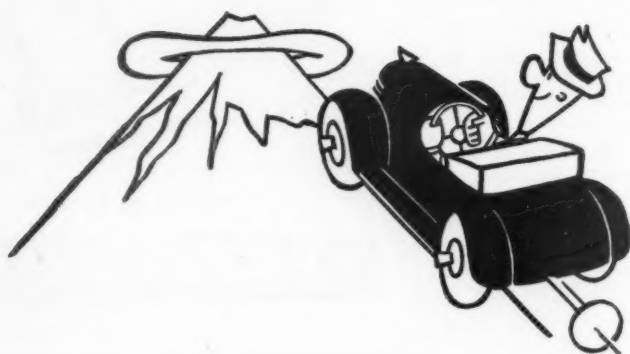
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BACK TO BUSINESS

Artemus L. Gates (above), who was wartime Assistant Secretary of the Navy for Air, then Under Secretary of the Navy, returns to business—not in his former role as president of the New York Trust Co. but as chairman of Lawyers Title Corp. of New York. Kuhn, Loeb & Co. and Commercial Investment Trust announced acquisition of Lawyers Title capital stock from the New York State superintendent of insurance, liquidator for New York Title & Mortgage Co., bankrupt predecessor of the corporation.

ances." This phase of insurance company loan activity may mean, from here on, some new and active competition for the nation's commercial banks.

WESTINGHOUSE FINANCING

General Motors Corp. (page 88) isn't the only leading manufacturer now feeling the need of financing to increase working capital and provide funds to take care of an expansion program. Westinghouse Electric Corp. last week announced plans covering coming stock and debenture financing expected to yield \$120,000,000 of new cash.

Already registered with the Securities & Exchange Commission for offering soon are \$30,000,000 of debentures, which will be sold publicly, and 1,647,037 shares of common stock, which will first be offered for stockholder subscription. Later, stockholders will be asked to authorize the sale of an additional issue of \$50,000,000 of preferred stock.

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Autos Done in Red

Average loss about \$75 per car made in first half of year, manufacturers report. But production has picked up.

The average automobile produced during the first six months of this year was turned out at a loss of nearly \$75. Net losses of \$45,123,001 for that period are reported by the Automobile Manufacturers Assn., which is believed to have worked in an estimate covering the only nonmember car maker, Ford Motor Co. Number of passenger cars produced in the half-year period totaled 641,895.

The financial outlook for the auto companies is brightening somewhat in the face of enlarged production, estimated by Ward's Automotive Reports for last week at 88,560 cars and trucks. That figure would indicate that the production rate is now about twice the average of the first half. (The car and truck total for the first six months was 1,056,937.)

• **Tax Angle**—But there is another angle—as fast as the industry goes into the black, it will lose the cushion of tax credits under carryback provisions. In the opinion of some financial men, if production does not increase appreciably, this may result in little better than a break-even position for the entire year.

The actual effect of carrybacks cannot yet be figured. In reporting first-half operations, some companies lumped them in with other credits and expenses, making accurate determination impossible. Indications are, however, that if the carrybacks had not been figured into the first-half showings, net loss would have run above \$100,000,000. General Motors alone had a second-quarter carryback credit of more than \$28,000,000, resulting in a net profit for the period of \$16,320,573.

• **Inventory Troubles**—Another factor serving to diminish the profit showings of the car companies is the imbalance of inventories and requirements.

Most companies admit being out of line on their stockpiles—too much of some materials and parts, not enough of others. They have felt that requirements had to be picked up whenever possible, even if quantities stretched beyond normal time cycles, because they might not be readily available when needed later.

The inevitable result is a slower turnover. Inventories which formerly turned over once a month may now last ten or eleven weeks. In companies processing the sizable requirements for auto making, this results in substantial charges for carrying the goods.



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Prices Imperil Wage Pattern

Public members of NWSB, noting shrinkage of weekly earnings, fear further rise in living costs will scrap 33% yardstick, washing out inflationary curbs and reopening whole issue of pay control.

Wage increase agreements now developing out of collective bargaining go almost automatically to the National Wage Stabilization Board for approval. Without that agency's O.K., prices can't be raised to compensate for the pay boost. Tripartite in makeup, NWSB is therefore the focus of both labor and industry pressure to make a whole series of "special circumstance" dents in the wage and price lines.

• **Pushed and Pulled**—On the one hand, the public members of NWSB, and behind them John Steelman, to whom as head of the Office of Economic Stabilization a board decision may be appealed, are pushed by union representatives to underwrite another round of wage increases which could produce another national pattern.

On the other hand, they are pulled in the same direction by business representatives who want companies committed to raising wages to be able to pass along the increased costs.

Even the comparative modicum of controls envisioned under the policies by which OPA and the Decontrol Board now operate depends on maintaining the wage structure established under the pattern of postwar 18½¢-an-hour wage increases. If this structure is cracked (page 17), the new price control law is made obsolescent.

• **Line Must Be Held**—Hence if NWSB, or some other agency carrying out its intended function, fails to hold the wage line, government inflation controls are washed out.

Thus far, this whelp of the old National War Labor Board has limited to some extent the effect of wage increases on prices by holding the amount of increase that can be used for price relief to the specific pattern developed since V-J Day, industry by industry. It has had support, too, from a provision in the current wage-price policy which measures cost-of-living increases by the rise in living costs between January, 1941, and last September—a yardstick marked at 33%.

But NWSB was never embraced by either organized labor or management. C.I.O. president Philip Murray called it a "handicap" to collective bargaining and wanted it abolished. The A.F.L. has consistently objected to any govern-

ment wage regulation. Resignations of the board's industry members already are on President Truman's desk (BW—Aug. 10'46, p7).

• **Gains Washed Away**—On top of all this comes the cry of labor leaders who seek a second round of wage increases unless the cost of living is rolled back near the June 30 level. They see gains won after the costliest strikes in history being washed away by rising prices. It is the opinion of NWSB's public members—W. Willard Wirtz, chairman, and Phillips L. Garman, vice-chairman—that unless price stability is maintained, the board will be unable to carry out its responsibilities. As they

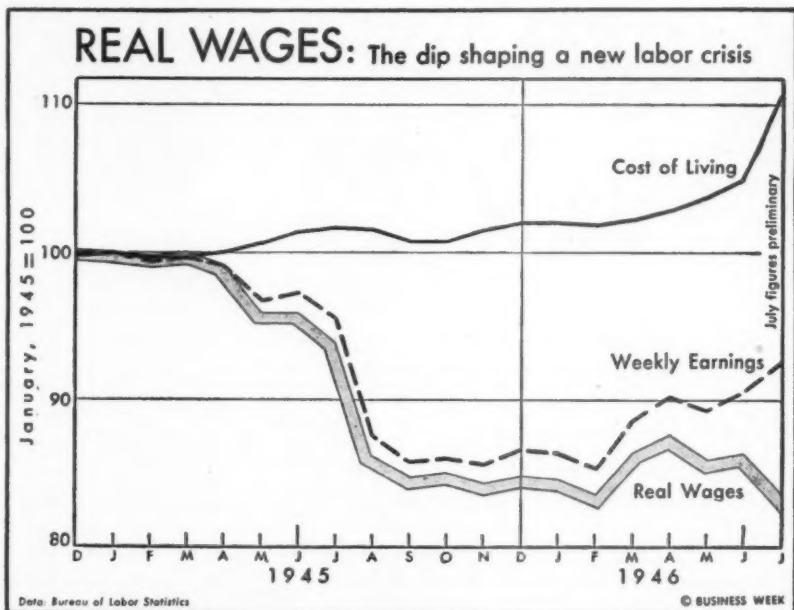
see it, further wage demands which would be sure to follow price relaxation would mean the board's end.

Here's how Wirtz and Garman appraise the situation:

Relative wage stability has been achieved, they say, during the first round of reconversion wage increases by sticking to the standards established in the Feb. 14 wage-price policy (BW—Feb. 23'46, p15). If these standards could be retained without change, the wage increases in the next six months would have little effect. (Under the present policy, NWSB has acted on some 12,000 applications. In a significant number of them, it has disapproved the increase in whole or in part, forcing the employer either to absorb it or not to pay it.)

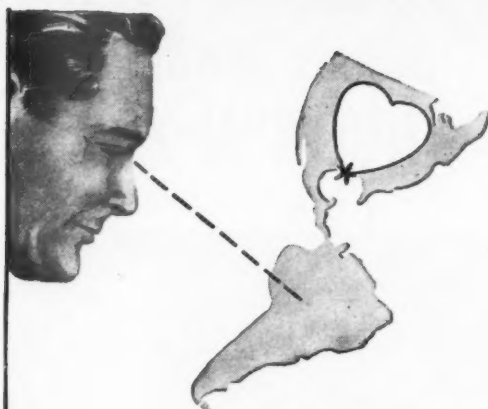
• **Rates vs. Earnings**—They point out that the increase in job rates for manufacturing employment, as distinguished from earnings, since April, 1945, when reconversion began, averaged between 11% (counting only general increases, such as 18½¢ and other patterns) and 15% (if other rate adjustments like shift differentials are included).

Average straight-time hourly earnings, however, have risen only 9% (8.7¢ an



Labor's weekly pay—not counting tax deductions—hit its highest point in history in January, 1945. The average employee in manufacturing was then earning \$47.50 a week. Last month, having absorbed the impact of overtime cutbacks, of a substantial labor force shift from high-paying war industries to lower-paying peacetime jobs, and of other factors which overbalance postwar hourly rate increases, average weekly pay approximated \$44. That drop would not be considered enough of a bump to mean widespread new wage demands and strike threats if the cost of living had not broken sharply upward from a three-year near-plateau. Today labor's weekly stint buys 16.3% less than it did at the beginning of 1945. As that loss continues to mount, a new labor crisis, threatening our whole economic balance, becomes more imminent (page 17).

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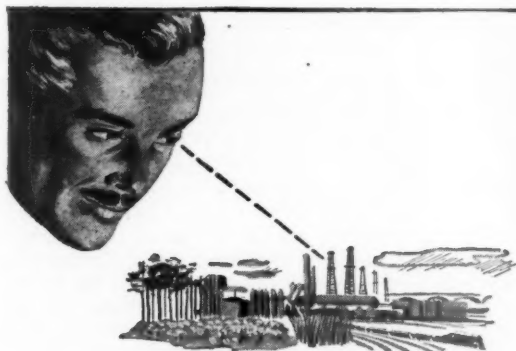


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hour), according to Wirtz and Garman. This is lower than the increase for job rates (1) because of a substantial shifting of workers from war industries to lower-paying peacetime industries, (2) because of a movement to lower-paying jobs in the same industry, and (3) because of downgrading and other depressive factors. However, if the straight-time hourly earnings were adjusted statistically to compensate for the interindustry shift, the average increase would come to between 11% and 15%.

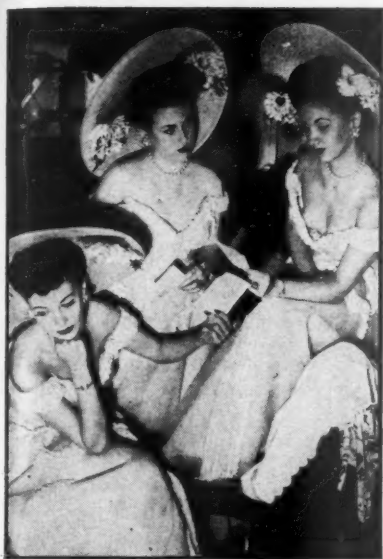
• **Take-Home Reduced**—When you examine the weekly pay envelope, they continue, workers in manufacturing have suffered a loss of 8% due to the reduced work-week (39.9 hours in June), elimination of overtime premiums and the interindustry movement of the labor force. This reduction in take-home, which is considered the best measure of capacity to absorb price increases, means that the man who earned \$47.12 a week when the war ended in Germany is bringing home \$43.37 a week this month (not considering tax and other deductions). This loss of \$3.75 a week for the 11,500,000 workers in manufacturing industry would amount to \$173,937,000 during August. (See chart, page 98, which shows the picture through July.)

Many of the largest wage increases, Wirtz and Garman add, have been in industries where the work-week has been cut most sharply. In the automobile and parts industry, for instance, where there have been raises of 18¢ and 18½¢ an hour, weekly earnings are more than 10% below what they were during the war, although the materials shortage is admitted to be a factor in this situation.

• **Weekly Earnings**—Weekly earnings have increased more than 1% in only eight manufacturing industries, seven of which during the war were paying less than 65¢ an hour in many jobs. The eight are timber and lumber; paper and allied products; food; leather and leather products; tobacco; apparel and finished products; printing and publishing; textile and other fibers.

Extending the comparison back to 1941, the NWSB public members find that take-home pay went up during the war, has gone down since, but is still above prewar. Held almost on a level during the war by the Little Steel formula, straight-time wage rates have climbed since V-J Day. Rates, but not earnings, have climbed faster than living costs.

If prices continue to rise, Wirtz and Garman fear the 33% cost-of-living yardstick might have to be raised. Prices now outdistance it by 7%. Other parts of the wage-price policy might have to be changed or junked, raising the problem of devising satisfactory new



AND THE BAND PLAYED ON

With fresh dismissal notices, chorines in Gotham's Copacabana night club—and lesser entertainers in other fun spots—quickly felt the pinch of new wage demands by James C. Petrillo's American Federation of Musicians. Asked: pay boosts of 25% from hotels and niteries, an extra 25% if musicians play for floor shows. The clubs, seeking to pare costs, report that after Sept. 1 there will be few girls, only top-flight entertainers.

wage regulations and finding an agency equipped to administer them, which NWSB isn't.

• **Enforcement Problems**—Uncontrolled wage increases in price-decontrolled industries would undermine the resistance against increases where price ceilings remain, they feel. And there is doubt that the rollback of wage rates that is being attempted in the building and construction industry, where direct controls still exist, can be enforced. Pressure for pay hikes in construction has already led to work stoppages aimed at the government.

Most serious test would be resistance against a second round of wage increases, such as was put up by OES in the northwest lumber industry (BW—Aug. 17 '46, p. 82), in the face of the large number of union contracts which have clauses making them reopenable on short notice.

But it is the judgment of Wirtz and Garman that, if reasonable price stability can be maintained, second-round wage demands can be staved off for some months and present wage controls continued.

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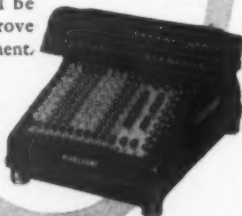
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Pattern Breaks

Wage Stabilization Board's demand that increases stick to 18½¢ level is ignored in three settlements in Buffalo area.

The National Wage Stabilization Board has stoutly maintained that any wage increase granted now must (1) conform to the nearly universal 18½¢ pattern, and (2) have deducted from it earlier increases which came after V-J Day (BW—Aug. 17 '46, p82).

Unless a request for price increases is corollary to the pay boost, NWSB has no power to enforce its policy, but it nevertheless uses all the influence it can command to prevent arrangements which violate this formula because of the upsetting effects they can have as precedents for new union demands.

• **Old Dispute Ended**—It is because of this fact that three wage settlements in Buffalo last week—two of which ended strikes and the third of which lifted a strike threat—are regarded as of more than local interest. They serve to recall the admonition appearing in The Labor Angle a year ago which warned "The employer with a union relationship who now makes an offer to increase wages ... may simply be asking for trouble" (BW—Sep. 8 '45, p98).

The first of the disquieting Niagara industrial district settlements ended a 110-day strike at the Buffalo Bolt Co. An agreement worked out under the aegis of the U. S. Conciliation Service provided that C.I.O.'s United Electrical, Radio & Machine Workers will now get a full 18½¢-an-hour wage hike. Buffalo Bolt had contended that a 5¢ increase which it made last December should be deducted from the 18½¢ it acknowledged was the post-V-J Day pattern. In settling, the company yielded to the union argument that inasmuch as the discussion which resulted in the 5¢ increase began before V-J Day, it could not be counted as a part of the current raise.

• **Earlier Raises Overlooked**—Emulating the Buffalo Bolt example, the Columbus McKinnon Chain Corp. plant, which had been threatened with a strike for months by U.E., agreed not to count an earlier 10¢ increase in granting a further 18½¢.

The Spaulding Fibre Co. then followed, overlooking an earlier 12¢ increase and granting 18½¢ to end a 115-day-old strike.

H. Ross Colwell of the Conciliation Service, after the initial pace-setting agreement, denied that the Buffalo Bolt agreement was setting a 23½¢ pattern. He said that the 18½¢ formula was being observed and the earlier raises were for obligations incurred prior to V-J Day.



BAKERY STRIKERS PAID WHILE PICKETING

A.F.L. bakery workers, on strike against Parkway Bakery in Philadelphia, receive paychecks from Harry Brown, production manager, while they picket the Parkway plant—one of eight major Quaker City bakeries struck. The walk-out of 1,400 inside workers in 13 plants reduced bread supplies in the area by 75% despite increased production in unaffected A.F.L.-contract bakeries. As public rancor mounted against breadless shelves, the union cut its demand for an increase from 30¢ to 18½¢; management upped its offer to 16¢ an hour.



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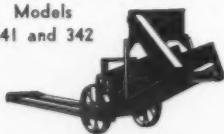
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Dixie Campaign

A.F.L., C.I.O. claim solid
organizational gains in South.
Oak Ridge offers first big test.
New textile union formed.

Organizers for the American Federation of Labor, working quietly in the federation's part of "Operation Dixie," have signed up between 80,000 and 85,000 new members and chartered more than 300 new local unions. A.F.L.'s southern director, George L. Googe, advised the federation's national officials last week.

Victories in 126 National Labor Relations Board elections were claimed by Googe, veteran southern A.F.L. official, who reported that the federation's "campaign to interest southern workers in sound collective bargaining rather than political organization is bearing fruit."

• **C.I.O. Record**—C.I.O.'s campaign (BW—Aug. 17 '46, p. 84) continues to move slowly. It shows a substantiated figure of 71 new collective bargaining rights won in southern plants since last May. These, according to C.I.O.'s southern director, Van A. Bittner, cover between 10,000 and 11,000 workers. C.I.O.'s staff in Atlanta "doubted" that A.F.L.'s claim could be supported, as is C.I.O.'s, by a public itemized list of NLRB victories won or voluntary collective bargaining agreements signed by employers.

An estimated 11,000 atomic energy workers at three Oak Ridge (Tenn.) plants went to the polls in NLRB elections this week, in the first major test between A.F.L. and C.I.O. in the southern drive. Pre-election campaigning wound up with a heated advertising battle on the Communist issue in C.I.O.—big point in A.F.L.'s southern strategy whenever it tangles with the C.I.O. in an organizing duel. The federation's ads called attention to withdrawals of furniture workers from C.I.O.'s "yoke of Communism." C.I.O. retaliated by advertising that Army investigators reported that "there is no evidence to support charges that the C.I.O. is Communist-inspired or engaged in political activities."

• **Strictly Southern**—A three-way battle for southern industrial workers was developing in a few textile centers, with a new—and so far minor—group of independents organized into the Dixie Organizing Committee to compete for textile workers against both A.F.L. and C.I.O. The new group was formed recently when 40 representatives of independent unions in six southern states conferred in Spartanburg, S. C., and then voted to form "a southern union



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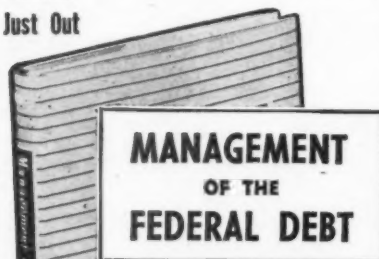
A \$300,000,000,000 financial problem behind every profit-and-loss statement

Here is a clear, sane analysis of today's unprecedented federal debt—which is now six times greater than when World War II started—pointing out its influence upon the nation's economy as a whole, and discussing its effect on the various classes of security holders in particular. The book directs attention to the entirely new situation created in the financial world by the great growth of the federal debt and the war financing policies pursued by the Treasury. Pertinent statistics and comparisons regarding the debt are included so as to place the magnitude of the huge debt in proper perspective, and indicate its relationship to the profit potential of every business.

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- insurance companies
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Just Out



By Charles C. Abbott, Associate Professor, Business Economics, Harvard University Graduate School of Business Administration. 194 pages, 5½x8, \$2.50.

Since today's federal debt of close to \$300 billions exceeds all other types of debt in the economy and since government bonds are greater than all other kinds of assets held by financial organizations, the author fully discusses the implications of this situation, with reference to particular types of financial institutions. Both the current thinking concerning the debt management and the relation of debt management to fiscal policy are examined extensively. Treasury management policies are surveyed and criticized, and objectives which the author believes should be the ultimate goals of policy are outlined.

Contents

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2. Wartime Policies and Postwar Problems
3. Debt Policy and the Loss of Fiscal Controls
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managed by southern people who understand southern problems."

Gordon L. Chastain, erstwhile vice-president of the United Textile Workers of America (A.F.L.) and an ex-organizer of C.I.O.'s Textile Workers Union of America, is the central figure in the formation of this new southern union group. Other former A.F.L. and C.I.O. local officials are cast in supporting roles.

• **Aims Attacked**—One of D.O.C.'s main arguments—that southern employers would prefer to deal with southern labor leaders not affiliated with either A.F.L. or C.I.O.—brought immediate protests from the other two groups, which charged that the true objective of D.O.C. would be the promotion of company unionism.

Both A.F.L. and C.I.O. policy committees in the South had bigger problems to face, however. For A.F.L., two major concerns are (1) criticism that because of apprenticeship and other union rules, particularly in the building trades, the labor supply is insufficient to meet demands, and (2) internal dissatisfaction in some construction unions over present small differentials in skilled and unskilled rates, due principally to Wage Adjustment Board ceilings on labor.

• **Union Answers**—A.F.L. is meeting the first of these problems by waiving some previous requirements for skilled classification, particularly for veterans, and by an all-out effort to speed the tempo of apprentice programs through coordinated activities of state, federal, and craft-union training activities. The second problem is being attacked in Washington, but so far efforts have been unsuccessful.

One of C.I.O.'s big worries is the fact that workers are signing membership cards offered by persistent organizers in plant drives, then voting against C.I.O. in NLRB elections. So far C.I.O. has suffered only ten defeats (one in seven) but the tests for the most part either have been, or were intended to be, setups. Organizers, at first told to get cards signed whether or not they could collect \$1.50 initiation fee, now are under orders to collect the money. With the money paid in, workers are not so likely to change their minds about being represented by C.I.O.

• **Turned Down**—A recent defeat in the Linen Thread Co., Inc., plant at Blue Mountain, Ala., in the Anniston textile area, emphasized the importance of the order to union officials. Linen Thread employs 950 workers, and 771 of an eligible 850 voted in an NLRB election. Despite the fact that C.I.O. had claimed to have signed cards from a majority of workers, it was rejected 529-to-242 when a collective bargaining vote was taken.

Price of Error

Ford held liable for back pay to all workers displaced in favor of veterans hired under superseniority ruling.

Ever since superseniority for veterans was ruled invalid by the Supreme Court (BW-Jun.1'46,p104), companies which applied that policy instead of the straight seniority provisions in their union contracts have been worried about the consequences. Now they have some indication of what to look forward to. The hint is contained in a ruling from the umpire between Ford Motor Co. and the United Auto Workers (C.I.O.). He holds the company liable for back pay covering all time lost by workers displaced by veterans on account of superseniority.

• **Heavy Liability**—Some 207 similar claims are on file in the office of umpire Harry Shulman, involving several thousand individuals. On this basis, the cost to the company of having followed the course which eventually turned out to have been wrong may run into hundreds of thousands of dollars.

The basic issue in the Ford proceedings was whether the Selective Service System's interpretation of the law was sufficient grounds for the company to have deviated from its contract. Shulman concluded, in nine lengthy pages, that it was not.

He pointed out that both parties knew more than a year ago that he considered the superseniority interpretation invalid, one that would eventually be overturned. No determination was issued by his office at that time, however, since it would have had no standing alongside the legal precedent to be ultimately set in court.

• **Ford Complacency Cited**—The decision noted that it is an American tradition to challenge laws and rulings where such challenges might be justified. Ford, however, according to the brief, made no effort to seek legal rulings on the issue, although it did urge the U.A.W. to do so.

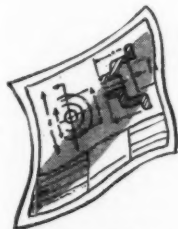
Further, the company stayed with superseniority even after the Second Circuit Court of Appeals ruled it invalid. At that time numerous other companies, including General Motors, switched from superseniority to straight seniority, as embodied in their contracts. This failure of Ford to take issue with a ruling which was being widely challenged provided further grounds for the Shulman determination that the contract deviation was not justified by the circumstances.

• **Congress Didn't Act**—Meanwhile, corporation hopes that legislation would



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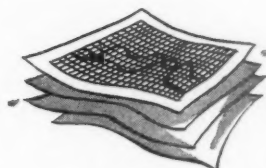
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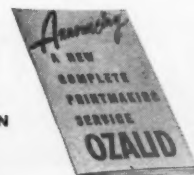
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relieve them of liability for following superseniority (BW—Jun.8'46,p90) appeared dashed by congressional adjournment. A measure had passed the House which would have eliminated such liability regardless of labor contract terms, but it failed to get by the upper chamber.

SMOKING HIKES TAX BILL

Officials of the Horst Mfg. Co., Detroit, burn when they see smoke, and no wonder. The problem of employees' smoking has brought them a tax penalty by decree of the National Wage Stabilization Board. Here's how it happened:

To reconcile employees to a no-smoking-while-working rule, the company and the United Auto Workers (C.I.O.) in 1941 negotiated two ten-minute rest periods a shift instead of a ten-minute rest period. Time went by, and workers began smoking on the job. Taking the easy way out, the company last Jan. 2 abolished the no-smoking rule and discontinued the extra rest period, and it's elimination has since been accepted by the union in a new contract.

Now comes NWSB with a finding that Horst violated the stabilization law by instituting a "wage decrease" without first obtaining its approval. For discontinuing the rest period and also dropping payment of \$25 a week to one employee for doing first aid and safety work on the side, NWSB has directed that \$6,000 of the company's payroll be disallowed as costs for income tax purposes. The company, the board said, could have been socked \$25,000.

P. S.

One of Ohio's longest strikes (146 days) ended when 200 C.I.O. electrical workers returned to jobs at the Imperial Electric Co., of Akron, after accepting an across-the-board 17¢ hourly raise, plus an additional 1½¢ hourly to correct inequities. Office workers will get a straight 18½¢ more an hour.

C.I.O.'s United Auto Workers this week formally requested John C. Lehr, U. S. district attorney for the southern district of Michigan, to institute suit in federal court as a test of whether returned veteran-employees are to be paid vacation allowances solely on the basis of time and earnings back on the job, or—as the union contends—on the basis of service time and job time (BW—Aug.3'46,p90). Suit would be in the name of H. E. Neal, a veteran, against his employer, General Motors. Union says Neal got a vacation check for 2¢, should be entitled to \$53.76 vacation credit for 1943 (when he entered the service from G.M.) and \$67.50 for 1945, based on 3% of average 1945 earnings of other employees with like seniority.

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THE INTERNATIONAL OUTLOOK

BUSINESS WEEK

AUGUST 24, 1946



The breakdown of peace in far corners of the world is narrowing the scope for postwar business expansion overseas.

American efforts to secure peace in China have failed. Chinese Communists have thrown down the gauntlet to Chiang Kai-shek's government with what amounts to a declaration of war and the mobilization of all available Communist troops.

For months, American businessmen have been shying away from plans to expand operations in China. Now these plans can be pigeonholed indefinitely.

American traders had already received a setback in China this week. Official depreciation of the Chinese dollar in relation to the U. S. dollar automatically made American goods 40% more expensive. This move was designed to lower the cost of Chinese exports, but Business Week's Shanghai correspondent cables that prices have soared to offset the rate change and that currency manipulations without price control in China are futile.

Rioting in India and Palestine has put a damper on optimistic business plans, and in these countries Americans are playing a wait-and-see game.

Business Week's correspondent in London reports that Indian capitalists are buying British company shares on the London Stock Exchange to the tune of millions of pounds. According to London speculation, if the trend continues, it could (in a very small way) reduce inflationary pressure in India and use up part of the sizable India-held sterling balances.

Rumors of British troop movements on the Iraq border near the Iranian oil fields are now counterbalanced by reports of Soviet troop concentrations on the northern Iranian frontier. This is part of a war of nerves that involves the whole Middle East and has effectively frightened many a long-term business venture out of the area.

In contrast, the "safe-spots" on the world map are being dotted with new enterprises.

Some 200 American firms are now planning to set up business for the first time in Great Britain (BW—Aug. 3 '46, p96).

Sixteen American companies have moved into Australia with investments of more than \$8 million. They will manufacture automobiles, air compressors, electrical equipment, and textile products.

Additional American firms contemplating Australian operations include Max Factor and the Firestone Tire & Rubber Co.

South Africa is experiencing a similar boom in investment from overseas. Since the beginning of the year, more than 2,000 new companies with nominal capital of \$325 million have been registered. Many of these are American and British branches.

Last week two New York investment firms, Ladenburg, Thalman Co. and Lazard Freres & Co., with the London firms of Lazard Bros. & Co. and

THE INTERNATIONAL OUTLOOK (Continued)

BUSINESS WEEK

AUGUST 24, 1946

J. Henry Schroder & Co., announced plans to finance a \$20 million company to exploit South Africa's Orange Free State gold fields (BW—Apr. 27 '46, p105) and other industrial enterprises in South Africa.

Another American group will put up 49% of the \$4 million capital for a British-American oil distributing company.

British capital is planning a large cotton textile mill which will employ between 3,000 and 4,000 native workers at King Williams Town, South Africa.

Another American firm, General Tire & Rubber Co., has revealed plans to build a \$4 million auto and truck-tire factory in Johannesburg. The company will supply the South African market and export to the Middle East.

It is reported from London that Rootes, Ltd., is in line for the chance to build the German Volkswagen in Britain. Months ago it was announced that German plants could turn out the Volkswagen for export—at a price that sent shivers down the spines of British car manufacturers—but pressure in the right place apparently stalled this plan in favor of licensing production to a British firm.

An American trade barrier fell with a golden clink this week.

The Attorney General has ruled that imports from Britain are dutiable only to the extent of their price—not including the British purchase tax which ranged from 16 2/3% to 100%. This will cheapen British imports to the U. S. and will result in rebates to American importers running to an estimated \$5 million.

Incidentally, the Attorney General's decision will help to boost Britain's rising exports. Preliminary figures for July put U. K. exports at an all-time high of \$400 million—equal to total British exports in the third quarter of last year.

Note as an unusual development in foreign lending the \$5 million loan by the Bankers Trust Co. to the Banco Central de Bolivia.

The loan is to be secured by gold and the funds will be expended on construction of an oil pipeline between the Camiri oil field and Tin Tin near Cochabamba. Construction will be under the supervision of American technicians.

Trade channels to remote corners of Europe are opening gradually.

American imports of Finnish woodpulp will rise from 35,000 tons in the first half of this year to 100,000 tons in the second half.

Finns had been burning exportable pulpwood for fuel until the European Coal Organization recommended U. S. coal shipments to Finland.

Britain has arranged to ship \$2 million worth of Romanian timber under the iron curtain during the last half of 1946. Later this year Romania will open an exhibit in London of Romania's exportable products.

Warning to American traders marketing U. S. trucks for Mexico:

The Mexican government has just issued stringent limitations on truck length, width, and weight. The Ministry of Communications has warned Mexican truckowners and operators against buying trucks and trailers which are being offered at cutrate prices in the United States because they may be barred by the new regulations from using Mexican highways.

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BUSINESS ABROAD

Argentina's New Order

Economic goals of Latin America's wealthiest nation include strengthening of industry, freedom from foreign financial control. Government undertakes decisive role in development plans.

When a *Business Week* editor recently asked President Peron a series of questions on Argentine economic policy, the President gave ready answers that he obviously intended to sound reassuring to industrialists. He capped the interview with a genial "No tema por industria."

Whether that advice—"Don't fear for industry"—can safely be taken depends heavily on the course of the man who gave it.

As a guide to the direction of his administration's long-range policies, *Business Week* presents a report on economic trends now evident in the Argentine.

Ever since the influence of the United States government failed to keep Juan Domingo Peron from winning the Argentine presidential elections earlier this year, the State Dept. has been trying to effect a face-saving rapprochement with his administration.

This week it seemed that Ambassador George Messersmith, dean of American hemisphere diplomats, had accomplished this difficult task. The hatchet swung by his predecessor, Spruille Braden, was at last getting a quiet burial.

• **Give and Take**—As evidence of good intentions on its side, Argentina has made some of the desired commitments on the control of German assets, schools, and interned persons. Adherence to the Act of Chapultepec and the United Nations Charter was approved by the Argentine Senate this week.

The United States, in return, will include the Argentine in its hemisphere defense plan: supply sample armament, send a military training mission, accept Argentine military personnel in U. S. training schools. Washington has already released some blocked Argentine dollars and ended the "blacklist" of Axis-oriented Argentine firms.

• **Failure**—For many a month the United States tried to make the Argentine eat crow for its revolutionary government's unsympathetic isolationist—or downright pro-Axis—policy during the war. But the Argentine thumbed its nose right back.

During these months, diplomatic conflicts of opinion and policy, mingled with a dash of name-calling, successfully obscured important events in the Argen-

tine as the Peron administration rode into office and set out to implement its program.

Emerging from the war with the strongest and wealthiest economy in Latin America, Argentina was in no mood to be pushed around. The profits of neutrality spurred a lingering nationalism dating back to the "Buy Argentine" days of the last depression.

• **Economic Weapons**—Industry had expanded and tightened its grip on the local market; agriculture had weathered the war and could look forward to a seller's market for years to come. War-accumulated gold and foreign exchange, running to well over \$1 billion, provided a bargaining weapon in talks with British and American businessmen and diplomats. Peron had plans for using all of these Argentine assets—industrial, agricultural, and financial.

Peron's program is nationalistic. In his inaugural address the president promised development of backward areas of the country, semisocialization of medicine ("the rich can pay their bills"), reform of the universities and extension of secondary education, the franchise for women, land reform to aid the tenant farmer, more liberal labor

legislation. To make Argentina independent of outside influences, he promised redemption of all foreign indebtedness, strengthening of industry—if necessary, through state-assisted enterprises.

• **Sweeping Changes**—Even before Peron took office it was clear that his political promises would result in profound changes in the Argentine economy.

A month before his inauguration, the Central Bank of the Argentine Republic and all bank deposits were nationalized. The bank acquired vast powers, including the fixing of interest and rediscount rates, control of credit, foreign exchange, and import and export permits. The government argued that nationalization was essential to guarantee an orderly expansion of the economy.

Following nationalization of the Central Bank, a State Industrial Credit Bank was established with capital of \$25 million, and a National Technological Institute was created to foster industrial and scientific research. The government also set up a Dept. of Commerce & Industry and a National Council for Postwar Social & Economic Planning, while abolishing the Argentine Trade Promotion Corp. in favor of a bank-sponsored trade-promoting agency.

• **Financial Reform**—Financial reform measures followed quickly. Peron had promised repayment of foreign indebtedness, so in mid-July the Central Bank called U. S. dollar and Swiss franc loans totaling \$135,400,000 and 56,900,000 francs. These were to be paid for with gold, but Switzerland has informed Buenos Aires that it would prefer francs to gold. On Aug. 1, a 4% domestic bond was refunded at 3%—and less than



Flanked by his vigilant aides, President Juan Domingo Peron outlines his "new deal"—a social, industrial, and financial program to upgrade Argentina.

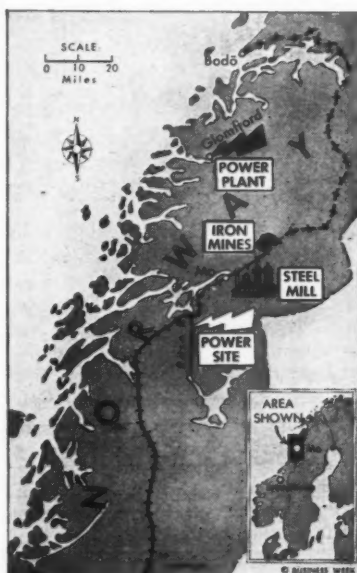
Norway Plans Steel Mill to Halve Imports

The Norwegian parliament, declaring partial independence of foreign steel suppliers, has approved plans for a state-controlled iron and steel mill to be built near the Arctic Circle. Work will begin immediately.

• **Stock Issue**—The plant will be located at Mo on the Rana River, near the Glomfjord power station (80,000 kw.) and the Dunderland iron range. Although Norway's iron and steel needs are expected to reach 400,000 tons by 1950, the new mill will supply only 200,000 tons.

Over the three-and-a-half-year construction period, 207 million kroner (about \$41 million) will be expended—67 million from a state grant, 75 million from capital stock issue, and 65 million from a state-guaranteed loan.

• **At Ice-Free Port**—Although the new project will supply a much-needed product which was 90% imported before the war, it is also intended as a vital factor in the development of Norway's northland frontier. The ice-free port of Mo is connected by railroad with southern Norway. Two other iron ore deposits are available for future development



—one in the Trondheim district to the south, the other near the Soviet border at Sydvaranger.

Additional electric power for future expansion is available on the Rosa River a few miles south and west of the mill site.

1% of the bondholders chose cash in preference to the new issue.

During July and August a British economic mission tangled with Argentine experts on a medley of problems ranging from future food purchases to acquisition by Argentina of its British-owned railroads.

• **Anglo-Argentine Problems**—President Peron told his supporters in Congress—in the midst of the British-Argentine consultations—that Britain could no longer expect “privileged prices” on food, that Argentina was robbed of about \$60-million by the last food contract. He proposed prices on a par with U. S. meat prices.

The Argentine negotiators offered to convert the blocked sterling balance, amounting to about \$500 million, into a 2½% long-term loan. The British considered Argentine bids for the railroads unreasonably low and gagged at the prices asked for Argentine food. The talks are still stalemated.

Argentina is acutely conscious of its industrial weak spots and equally disturbed by the burgeoning strength of neighboring Brazil. Peron's program involves extensive and expensive plans for industrialization.

• **Development Plans**—Argentine economists are now at work on the first census

in 30 years, and the president has promised that as soon as essential data are available a five-year plan of economic development will be revealed. Already, several projects have been roughed out and some of the country's shortcomings appraised.

The Central Bank has announced that, in its opinion, certain industries will be unable to compete against foreign competition and can expect curtailed operations. The products of these industries include machine tools, shoe machinery, dairy machines, large elevators, domestic refrigerators, grease guns, large road machines, certain diesel engines, automobile spare parts, timber for furniture and construction, special paper products, special cotton yarns and fabrics, and woolen fabrics.

• **Equipment Needs**—The president has revealed that Argentina will not permit the purchase of secondhand or second-rate equipment for industry and transport, and that during the next five years an average of \$250 million a year will be spent on imports of equipment for industry and transport.

Plans for a steel mill, to produce 300,000 tons of iron and steel products annually, will soon be placed before the Argentine Congress. The plant will cost about \$30 million, and funds will

be subscribed by both the government and private investors. The government will hold a controlling share of the stock. The mill is to be designed for imported iron ore and coal (or, perhaps, electric power yet to be exploited) and located near the centers of consumption. Argentina's only iron ore is an uneconomic distance from the major industrial cities.

• **Subsidized Steel**—A rolling mill, to cost about \$37,500,000, is also planned and American Rolling Mill Co. will supply equipment, build the plant, and train personnel for its operation.

Steel produced by the national mill is expected to cost more than imported products, and the government contemplates a subsidy to put the domestic products on a par with foreign metal.

Argentina's other industrial plans are closely tied to the steel project. Following completion of the mills, a medley of smaller industries based on iron and steel products is expected to emerge. Government economists estimate that new capital investment in these auxiliary industries will run to \$125 million.

• **Government Sphere**—The government has announced that it intends to participate in industry “wherever private capital fears to invest,” and where the national interest, economic or strategic, “requires that certain industries be established.” Railroads may be nationalized; public utilities will also come under federal control; and new state-owned projects are planned. There is talk of a gigantic hydroelectric plant on the upper Uruguay River, where a potential estimated as high as 800,000 kw. is available.

The government will dominate the newly established national air service, which has reserved key domestic lines for itself and contemplates competing for international routes.

• **Bid for Capital**—Earlier this year Argentina followed a pattern set by a half-dozen other Latin American nations and established a National Reinsurance Institute, setting forth complicated and more restrictive measures governing the operations of American and other foreign insurance companies.

Like many another national program, Peron's “new order” or “new deal” can be appraised only as it unfolds and develops, and even American businessmen in Buenos Aires are uncertain as to its eventual implications.

Peron has said that his government is oriented toward the United States, toward the Western Hemisphere, and toward the United Nations. He has invited foreign capital to participate in the development of Argentina—on equal terms with local capital, but in a minority position. Whether this capital will be forthcoming will depend in large degree upon his next moves in the political and economic spheres.

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CANADA

Seek Free Ports

Quebec, Halifax, and Saint John envision increased harbor traffic through establishment of foreign trade zones.

OTTAWA—Led by the ancient city of Quebec, a number of Canadian port cities are pressing the federal government for permission to establish free ports or foreign trade zones on their waterfronts.

• **Rivalry Appears**—A joint delegation from Quebec, Saint John, and Halifax, which waited on several cabinet ministers last week, was given no assurance of early action.

The government has turned the problem over for study to an interdepartmental committee headed by J. E. St. Laurent, vice-chairman of the National Harbors Board.

It was Quebec City's pressure, organized largely by the veteran mayor, Lucien Borne, through boards of trade, and other organizations of the city and surrounding municipalities, which led to the appointment of the committee. The two Atlantic ports of Halifax and Saint John, jealous of any move to boost traffic through Quebec at their expense, followed by putting in bids for free ports themselves.

• **Winter Traffic Sought**—Montreal and the Pacific Coast ports of Vancouver and Victoria are also showing interest and the committee's report is said to have been delayed by slowness on the part of those centers in making submissions.

Sponsors of the idea at Quebec dream of making that city a year-round port. Up to now there has been no winter traffic. But the civic authorities contend that with modern navigation and ice-breaking facilities the St. Lawrence is easily navigable in winter up that far.

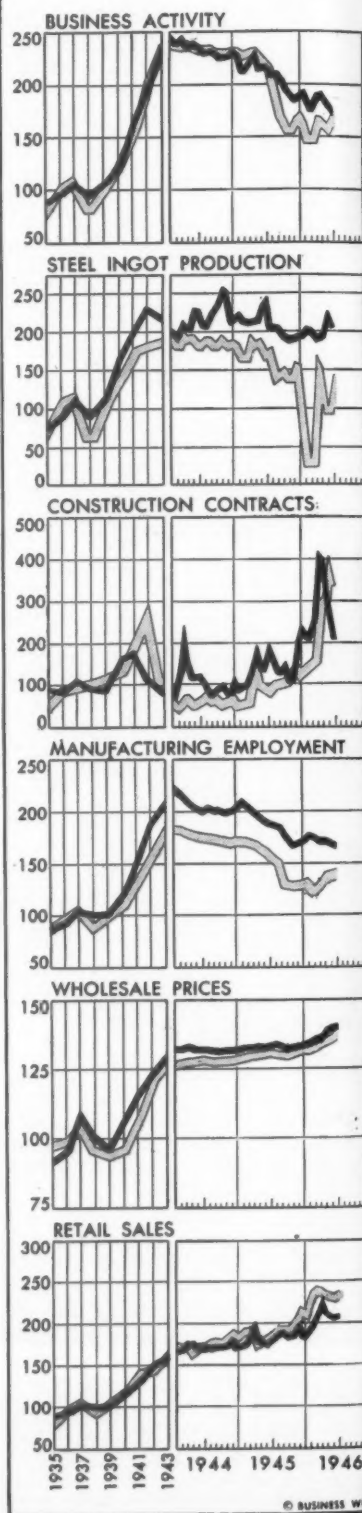
Recently it was reported that private capital was available to the extent necessary to establish warehousing, loading, and processing facilities at Quebec as soon as a foreign trade zone was possible. The city's request is merely for enabling legislation to permit establishment of the free zone on the application of local public authority.

• **U.S. Zones Cited**—The Quebecers back up their agitation with assertions that the number of foreign trade zones throughout the world is growing, that they stimulate foreign trade, and that Canada needs one or more to get its share. Experience of the operation of New York's Foreign Trade Zone No. 1 and the recent approval of the New

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CANADA — U.S.



Orleans zone (BW-Jul.6'46,p34) are cited in support of the move.

One of the tough points for the government to decide will be which cities are to be given the right to establish free ports, if enabling legislation is passed. The fact that the United States got along with only one free port until recently suggests to them that if there were more than one in Canada there would not be business enough for all. Yet it is felt that political and other considerations would make it impossible for Canada to get away with fewer than three free ports on the Atlantic coast, one or two on the Pacific, and perhaps one or two on the Great Lakes.

SHIPYARD DELIVERS

HALIFAX, N. S.—The Halifax Shipyards Co. has delivered the second of four destroyers for the Royal Canadian Navy, and has thereby given a demonstration of the competence of Nova Scotian shipyards. No other ships of this type has been built in Canada.

The Nootka, just commissioned, is a 377-ft. ship of 3,278 tons with a speed estimated to be between 38 and 45 knots. A third ship is under construction, and the fourth will be delivered in 1947.



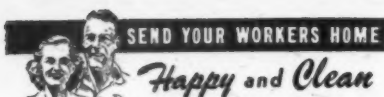
FOR NEIGHBORS

At six reception and information centers along the border, the Canadian province of Ontario is rolling out the welcome mat to American tourists. This is one of the innovations of the newly established provincial Ministry of Travel & Publicity. The provincial government is not only busy trying to sell the province to tourists; it is propagandizing resort operators to improve and expand accommodations with an eye to making the Yankee dollar an even more important factor in Canada's income from abroad.

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Dividend on Common Stock
 NOTICE IS HEREBY GIVEN THAT a dividend of 75¢ per share has been declared on the Common Stock of Atlas Corporation, payable September 20, 1946, to holders of such stock of record at the close of business September 5, 1946.

WALTER A. PETERSON, Treasurer
 August 6, 1946.

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BUSINESS WEEK

THE MARKETS

(FINANCE SECTION—PAGE 88)

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	172.4	175.8	167.3	139.9
Railroad	61.1	61.5	59.5	50.5
Utility	89.4	90.5	87.0	68.5
Bonds				
Industrial	124.8	123.3	122.9	121.7
Railroad	117.6	117.8	118.4	113.7
Utility	115.5	115.3	115.1	115.4

Data: Standard & Poor's Corp.

Prices Still See-Sawing

August stock market proceedings continue to unveil with monotonous regularity (1) daily price gains that are quickly erased by subsequent profit-taking sales, (2) abnormally low trading activity, and (3) on occasion, sharp individual gains or losses brought about more by the increasingly thin markets disclosed in many issues than by any fervent buy-or-sell desires on the part of the traders involved.

• **Reading the Signs**—To some experienced market students, partial to previous bull market precedents, this recent lackadaisical performance strongly suggests action of the type that in the past has often presaged the testing of previous highs by the stock list as a whole.

Wall Street, as a whole, probably believes similarly that the 1942-4? bull market, despite its disappointing performance this summer, still contains enough basic strength to assure present market participants of at least one more

sharp swing upwards in prices before it passes into history.

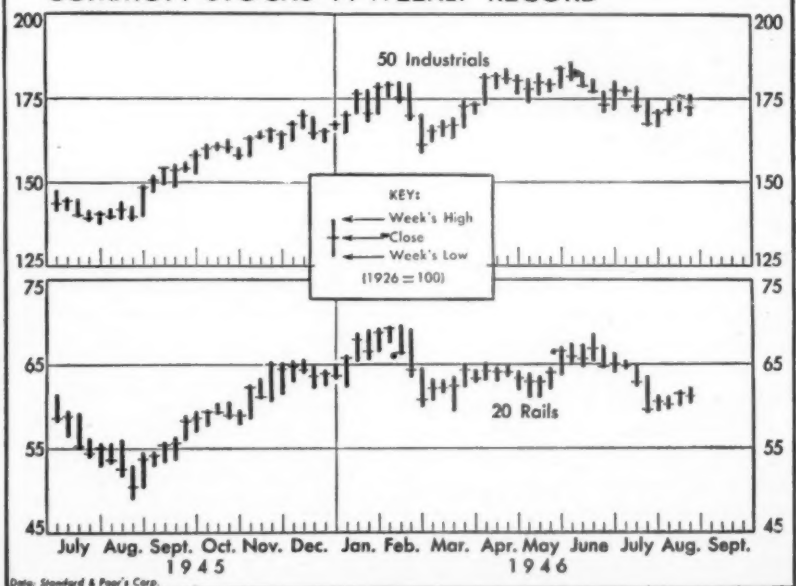
• **Caution Evidenced**—The Street generally, however, doesn't think this price updraft is at all imminent. Instead, on balance, market letter writers still evidence more caution than rampant bullishness whenever discussing the near-term price outlook.

This wariness is caused by a number of factors. The foreign situation, OPA worries (not diminished, either, by the Decontrol Board's rulings this week), the labor outlook once elections get out of the way, and the still congested position of the new issues market are all playing their part.

Most conducive to today's caution, however, is a strong belief that before the next price upswing can properly get under way, the market will have to assimilate a pretty heavy amount of selling. Brokerage quarters, in particular, report the presence of many clients who appear determined to take into their bank accounts at least a big slice of the handsome paper profits now available to them on each move of the market toward its earlier 1946 (and bull market) highs.

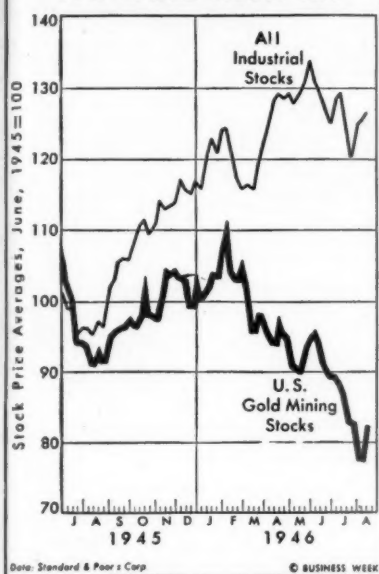
• **Expectations**—It is not expected that such selling will cause any lasting damage. Nevertheless, it appears not at all unlikely that, because of such liquidation, near-term New York Stock Exchange trading sessions will uncover much price sluggishness, and on occasion, perhaps, even some rather sharp price upsets. Whether the latter will

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

NO GOLD RUSH YET



prove an opportunity to pick up holdings for subsequent profit-producing remains to be seen. Many Wall Streeters, however, are confident that this will prove the case.

Most of the prominent stock advisory services currently display caution in their advice to subscribers touching on the near-term picture, but appear fairly bullish where the longer-term outlook is concerned. It is interesting to note, nonetheless, that some are beginning to call attention to the fact that the current bull market is now more than four years old, that numerous stocks are already pretty high, and that it's time now to curb a too venturesome streak.

Bargaining Contest

On Wall Street's labor front this week all action was centered on the hearings under way before the New York State Labor Relations Board covering the recent request of the United Financial Employees Union (BW—Aug. 3'46,p65) for recognition as exclusive bargaining agent for clerks of Harris, Upham & Co. and Carl M. Loeb, Rhoades & Co., two of the district's largest brokerage houses. The latter has acceded in principle to holding an election to determine this point. Harris, Upham, however, is challenging the board's jurisdiction in the matter.

Gold Stocks—No 1946 Bonanza

Bromidic wisecracks about "gold in them thar hills" are less funny than ever to most holders of American gold mining stocks.

For a long time, gold shares have mostly proved a loss-generating investment (chart). No other stocks, in fact,

have done so poorly since V-J Day (BW—Aug. 17'46,p103). And Wall Street at present considers no group less attractive for purchase.

• **Readily Explained**—The reasons behind the poor postwar performance and today's unpromising position of the gold stocks are not hard to find. For one thing, they have never been good bull market performers. And, despite widespread beliefs to the contrary, they don't represent a good inflation hedge. Instead, gold mining is traditionally a "depression industry."

Unlike most other segments of free enterprise, such companies are primarily dependent upon the price the government decides shall be paid for their output. As an obvious result, gold mining profits usually expand only when deflationary influences are cutting down operating costs. And they quickly start shrinking when good times send mining costs spiraling upwards.

• **A War Orphan**—During the war, silver was used by some industries as a substitute for copper and other essential war metals. Gold, however, never acquired any similar wartime value. Instead, by late 1942, virtually all gold mining was ordered stopped.

Although this closure order was finally lifted on July 1, 1945, the rise in gold mining activity has not been at all sharp. Production in 1945 ran 84% under 1941 levels. Gains scored in gold output in early 1946 have been largely erased by strikes.

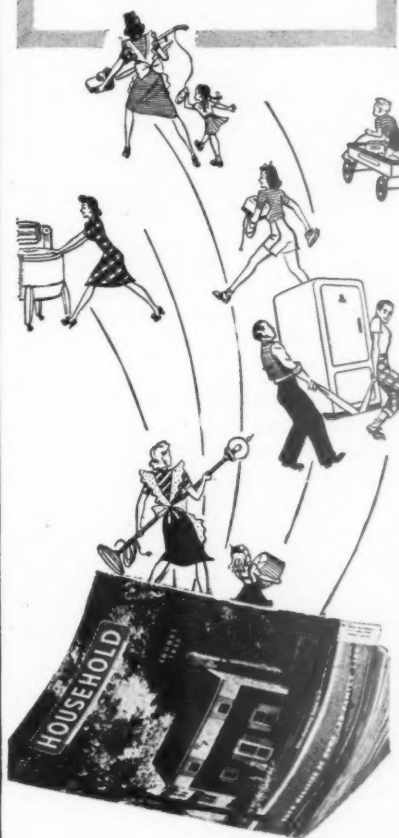
Since V-J Day, placer operations have been providing most of the stepped-up activity that the gold mining industry has been able to report. That is because above-ground operations require less manpower.

• **Outlook Isn't Bright**—Where the operators of underground workings are concerned, the situation appears discouraging. Even the "low-cost" units in that group are now faced with mounting labor costs and heavy property rehabilitation expenses, which will sharply restrict profit expansion whenever increased production becomes possible.

In the case of the "high-cost" lode mines, the outlook is even more bleak. Many such operators may find it actually cheaper in the long run to delay reopening their mines until (1) deflationary trends restore a "normal" spread between operating costs and the current gold price of \$35 an ounce, or (2) the price of gold is raised by government authorities.

Wall Street generally regards the gold stocks as an unattractive buy, except perhaps as a long-shot gamble that the price of gold will be eventually raised. The Street frankly admits that it sees little chance that this will happen soon, but it does point out that politics, as well as economics, plays a definite role in the pricing of gold.

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THE TREND

JOIN THE ARMY AND SEE THE MONEY ROLL IN

Had you thought of the enlisted man in the armed forces of the United States as an extraordinarily well paid worker? If not—we find most people had not—we commend to you an examination of the table appearing in the center of this page. The table reports the pay, as provided by the new military pay bill, and the money values of the allowances received by three ranks of married enlisted men in the Army who have elected to serve for the 20-year period required to make them eligible for retirement pay. The pay and allowances for the comparable ranks in the Navy are much the same.

• Even if the enlisted man in the Army does not elect to serve the 20 years required to get the retirement benefits provided, his minimum monthly pay as a buck private, if single, is about \$150 and, if married, about \$210. If you compare this with the monthly pay of \$204 being received by the average worker in industry, who has usually had many years of experience, it becomes entirely clear that Congress has made it possible for the enlisted man in the Army or Navy to do very well financially.

This, as we see it, is all to the good. It provides the first essential step toward putting our armed forces on a proper basis of peacetime operation. That basis is volunteer enlistment by first-rate people for service of which they have a right to be proud in all particulars. The present day Army is no "Drill ye Terriers, drill" outfit of the sort of which Kipling sang. About 90% of its personnel, and that of the Navy, too, are required to master technical jobs calling for first-rate ability.

• During the war it was fitting to man our military forces by a general draft. It would be completely repugnant to all of our ideals, however, to rely upon coercion to man our armed forces in peacetime; and it would be a singularly noxious arrangement for American business. For certainly if a peacetime draft of military manpower were to become the order of the day, peacetime draft of industry would quickly secure ardent sponsorship. By providing an attractive military pay scale, Congress has now greatly reduced that possibility.

As the men who manage American industry know so well, however, there is much more to creating a good job than providing a fat pay envelope. Other key ele-

ments of a good job are the respect in which it is held, the opportunity it affords, and the feeling of doing something that is worth doing which it stimulates.

• The historical record of our armed forces in developing these attributes of enlisted service in peacetime is drab to say the least. This could not be more clearly attested than by the fact that a standard term to characterize lolling around on the job is soldiering. Also the reputation of our armed forces for good personnel management has not been improved any since V-J Day. There have been recurring reports of cases of new recruits being allowed to lie around for months before receiving basic training, and of untrained youngsters being tossed into jobs calling for seasoned veterans.

We are inclined to be tolerant of the failures of the armed forces in personnel management since V-J Day. To their enduring glory that great day of victory came sooner than prudent military planning would permit it to be envisaged, and with it a rush of demobilization dictated by nonmilitary considerations, which has enormously complicated the proper handling of military personnel.

Because of these failures, however, the armed forces have added difficulties in overcoming that deeply ingrained feeling of many Americans that peacetime

enlisted service in the armed forces is organized boondoggling in uniform. To remove these they must not only develop a far better personnel program, in terms of effective use of manpower and opportunities for education and advancement, than they have ever had in the past, but must also provide a convincing demonstration that they are carrying out the program in the most effective manner.

• If such a personnel performance is combined with the attractive scale of military pay now prevailing and we civilians give the armed forces understanding cooperation, it should be possible for them to meet their needs of first-rate manpower without further recourse to the draft, now temporarily suspended after Congress had most reluctantly extended legislative authorization of it through March, 1947. One needs only to glance around the world to see that it is decidedly in the national interest to have it so.

SAMPLES OF ARMY PAY AND BENEFITS

	Private	Sergeant	Master Sergeant
Base pay	\$75	\$100	\$165
Allowance, wife and child	58	58	58
Food, clothing, lodging.	43	43	43
Medical and dental care.	8	8	8
Insurance	13.50	13.50	13.50
Transportation, laundry, and incidentals.	12	12	12
Annuity for retirement (as master sergeant after 20 yrs.)	103.28	103.28	103.28
Total	\$312.78	\$337.78	\$402.78
Income tax he doesn't have to pay	30.08	34.58	46.33
Monthly Total	\$342.86	\$372.36	\$449.11

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Paper cups for ice cream . . . And pails without a peer

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It used to take a crowbar, skinned knuckles and choice language to change the old clincher-type tire. Then a Goodyear man got an idea. Working as a team, other Goodyear people turned the idea into a new kind of easily demountable tire — the straight-side tire — a historic Goodyear "first."

Since then, some 40 years ago, Goodyear people have continued to work together . . . to produce the most famous "firsts" in tire history — the multiple-ply cord tire, the pneumatic cord truck tire, the All-Weather Tread, the LifeGuard

Safety Tube and numerous others.

Research experts, engineers, factory and office workers — at Goodyear everybody is on the same team. Each is imbued with the Goodyear spirit . . . to make Goodyear products better today than they were yesterday, better tomorrow than they are today.

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